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The Animals (Anæsthetics) Act, 1919.

By A. W. Noel Pillers, F.R.C.V.S.

The above Act was passed on August 19th, 1919, to make further provision for the protection of animals from cruelty. As the surgical operations mentioned in it are, with few exceptions, performed by veterinary surgeons, it must be assumed to be of considerable interest and importance to us, because the alleviation of the sufferings of the lower animals is one of the most important functions of our calling.

We are not concerned here with any of the facts which led to the passing of the Act, or with the minutes of evidence of those who helped to frame it. It has been in force over ten years and it is time for us to see whether it has done what our legislators intended, and whether it has had any other effects. Major F. J. Taylor, T.D., M.R.C.V.S., in the *Veterinary Record* for July 26th, 1930, p 651, says that the time is overdue for a revision of this Act. The writer has for some years been closely associated with Courts of Summary Jurisdiction, and the subtleties of legal phraseology especially with regard to prosecutions under Orders of the Minister of Agriculture & Fisheries made under the Diseases of Animals Acts. Owing to this experience and interest he has thought, with Major Taylor, that someone ought to review the Act, its aims, and fallacies. Uplike so many other Acts, this one appears to be quite short and straightforward, for it has only seven sections and six brief schedules. Broadly speaking, Section 1 lays down the offences; horses, dogs and cats, and bovines must not be subjected to the operations in Schedules 1, 2 and 3 respectively, unless under a general anæsthetic of sufficient power to prevent the animal feeling pain. Whilst undergoing the operations of Schedule 4, 5 and 6, the same groups of animals must be under the influence of a general or some local anæsthetic. The penalties are stated in Section 2, *viz.*, on summary conviction in respect of the first offence a fine not exceeding £5, and in respect of any second or subsequent offence a fine not exceeding £25 or alternatively, or in addition thereto, imprisonment for any term not exceeding three months.

Although occasional reports of prosecutions under these sections have appeared in the press, the writer is unaware of any statistics on the subject. One would imagine that any serious attempt to enforce them would require the appointment of several very tactful veterinary surgeons, because they would have to visit professional and non-professional practitioners at all hours. Section 3 gives the Minister of Agriculture & Fisheries power to add by Order any operation to any of the schedules, to transfer an operation from one schedule to another, and also to extend the provisions to any other domestic animal. He may also declare any substance to be a suitable anæsthetic, local or general; drafts of such Orders have to be published for a period of three months and representations shall be received and considered. The Orders when made have to be laid before both Houses of Parliament for thirty sitting days before becoming effective, and in the meantime can be annulled by resolution of either House. Up to the present these powers do not appear to have been exercised.

Section 4 provides that, except where the context otherwise requires, the expression "horse" includes pony, mule, jennet or donkey. Section 5 says that nothing in the Act shall apply to any experiment to which the Cruelty to Animals Act of 1876 applies. By Section 6 the powers of the Minister of Agriculture & Fisheries, so far as Scotland and Ireland are concerned, are to be exercised by the heads of similar special departments in those countries, and Section 7 gives the short title.

In order that the reader may follow the remarks which are about to be made, the various schedules are set out overleaf in tabular form; a general anæsthetic is compulsory for all those operations in the left hand column, and for those in the right a general or local anæsthetic must be used.

The first difficulty one encounters is with regard to the words "general or local anæsthetic." If a general anæsthetic means an anæsthetic under which the patient has to lose consciousness, then spinal anæsthesia in any of its forms cannot be used for any of the scheduled operations. It is, however, very suitable for several of them, especially those of the posterior part of the trunk, such as amputation of the penis, mamma, or uterus in the three first schedules, and scrotal and inguinal hernia in the first two. If an up-to-date surgeon was held to have contravened the Act for using spinal anæsthesia it would be a serious bar to progress; this is a point which requires settling. Cæsarian section is now done in the human subject under spinal anæsthesia where pulmonary and cardiac conditions render inhalation methods dangerous (Cæsarian Section under Spinal Anæsthesia—John William Burns, M.D., F.R.C.S., *Lancet*, p. 1012, May 10th, 1930.)

The same difficulty arises with term "local anæsthetic" in Schedules 4, 5 and 6. Can an agent injected epidurally be regarded as a local anæsthetic for an operation five feet away? It is known to be satisfactory, but is it local, and does it comply with the law? Even if the law be stretched and one assumes that spinal anæsthesia would satisfy the Act as both a general and a local agent, surgically speaking it is neither. It is spinal anæsthesia and the Act should be made to realize it without some poor veterinary surgeon being roped in to prove it in the law courts, and so make "case law." E. W. Hey Groves, F.R.C.S., etc., in the ninth edition of his *Synopsis*

DEPT. OF VET. MEDICINE

General Anæsthetic.

HORSES.

First Schedule.

1. Operation for quittor.
2. Operation for stripping the wall or sole of the hoof.
3. Operation for poll evil.
4. Operation for fistulous withers.
5. Ovariotomy.
6. Laparotomy.
7. Amputations of penis, mamma, uterus.
8. Extraction of permanent molar teeth.
9. Operations for scrotal and inguinal hernia.
10. Operations for scirrhous cord and extensive tumours.

DOGS AND CATS.

Second Schedule.

1. Castration in animals six months old and upwards.
2. Ovariotomy.
3. Laparotomy.
4. Amputations of penis, mamma, uterus.
5. Operations for scrotal and inguinal hernia.

BOVINES.

Third Schedule.

1. Ovariotomy.
2. Operation for Actinomycosis.
3. Laparotomy.
4. Amputations of penis, mamma and uterus.
5. Dishorning cattle over one month old.

General or Local Anæsthetic.

HORSES.

Fourth Schedule.

1. Neurectomy or unnerving.
2. Enucleation of the eyeball.
3. Line and point firing.
4. Operation for umbilical hernia.
5. Urethrotomy.
6. Docking of the tail.
7. Trephining.

DOGS AND CATS.

Fifth Schedule.

1. Enucleation of the eyeball.
2. Operation for umbilical hernia.
3. Urethrotomy.
4. Docking of the tail and clipping or rounding of ears of animals over six months old.

BOVINES.

Sixth Schedule.

1. Enucleation of the eyeball.
2. Operation for umbilical hernia.
3. Rumenotomy.
4. Urethrotomy.
5. Trephining.

of Surgery recognises general, local and spinal anæsthesia. In practice, we as a profession do the same, and veterinary laws ought to be in keeping with veterinary usage.

When the species of animals are considered, one can hardly understand what the sheep, goat and pig have done, that our legislators saw wise to exclude them from the protection which the Act is supposed to give to, let us say, bovines. It is no argument to say that only a few of these animals are operated on annually, because the suffering of each one of that few would be just as great as that of an individual bovine. As a matter of fact, I have performed several of the operations, scheduled for the other groups, upon sheep, goats and pigs. It is needless to say that these were done painlessly, and if that is sufficient reason for leaving them out, then there is no need of the Act in view of the Protection of Animals Act of 1911. Then, too, there is the question of a stated age, when it is necessary to use either a local or a general anæsthetic. Apart from the difficulty of ascertaining ages of cattle over and under one month, and of dogs and cats over and under six months, how does the pain differ in animals just before they reach these ages from that in animals just over them? It is, moreover, not easy to defend these sharp age limits logically. Apparently no anæsthetic is necessary under the Act for castration of a six-years-old stallion, but a general one is compulsory for this operation on a six-months-old kitten!

There is a host of operations always done by veterinary surgeons under anæsthesia, which are not mentioned in the schedules. If this satisfies our complex civilisation, why draw up half the story of what they must do? Why not prevent the wrong type of man from doing things he doesn't understand? Let us now consider a few of the operations on horses which must be done under a general anæsthetic. The words and numbers used are those of the Act.

1. *Operation for quittor.*

Now what is a quittor? Is it a sinuous wound of the coronet, or must the lateral cartilage be involved? And what is the position if the damage has to be got at from a "festered corn"? Then, again, does "operation" mean the classical method of removing the cartilage, or is the introduction of a probe pointed bistoury an "operation"? The latter is surely an operation, and to give a general anæsthetic for it would be prostitution of our art.

2. *Operation for stripping the wall or sole of the hoof.*

In this case the question of degree is even more likely to crop up. Is it the whole wall or sole, or is it a part of each which is intended? The whole wall is rarely removed, the whole sole may be under-run with pus, and can easily be removed in these cases without pain; if it is part of the sole, must a general anæsthetic be used to open a localised infection following a picked up nail?

3. *Operation for poll evil*; 4. *Operation for fistulous withers.*

If a poll abscess and withers abscess are not "poll evil" and "fistulous withers" until opened, then simple incision has to be followed by chloroform before one can go any further.

8. *Extraction of permanent molar teeth.*

Every practitioner who has paid special attention to the molars of aged town horses knows that the third lower and upper permanent molars often become loose as a result of disease of the socket; he can and often

does remove such teeth with his fingers. Is this extraction within the meaning of the Act, or must he use chloroform or wait till they drop out, as they often do?

With regard to the schedule of operations on bovines which must be done under a general anæsthetic, it will be observed that laparotomy is included, yet rumenotomy can be done under a local agent according to Schedule 6. No one doubts that the operation of rumenotomy consists of cutting through the abdominal wall and then into the rumen. It is puerile to say that the Act means cutting the rumen only, because all descriptions of operations include the beginning and the end. One has always to take these preliminary steps before a viscus is reached. Yet under the Act if one wants to do a laparotomy, one has to use a general anæsthetic. What would be the position of the unfortunate surgeon who started off to do a rumenotomy under a local anæsthetic as prescribed in the Act and then, finding the rumen normal, stopped? If he recorded such a case he would run the risk of being prosecuted. If a local anæsthetic is good enough at law for rumenotomy, why should it not do for operations on other stomachs? Certain of these have been placed before us very favourably during the last few years.

In the second Schedule it is laid down that a general anæsthetic must be given for "operations for scrotal and inguinal hernia" in dogs and cats. A strangulated scrotal hernia would therefore come within the Schedule. Now, in many cases where there is much shock the patient will die under a general anæsthetic, yet if the operation is performed under a local one the results are often good. It would, in my opinion, be malpractice to take the first course, and reference to surgical works shews that the human surgeon holds this view also.

There are many other interesting points in connection with the Animals (Anæsthetic) Act, especially the difficulty of performing some of the operations in Schedules 4, 5, and 6 under a local anæsthetic, but sufficient has been written to shew that here lies a great field of research for those veterinary surgeons who are also members of the legal profession. It may be argued that many of the points raised are "mere quibbles," to which I must reply that "the words were never uttered, that even if they were, it was a privileged occasion, and that they were fair comment on a matter of public importance." Perhaps our barrister veterinary surgeons might be able to show that the repeal of the Act would not cause any decline in the sale of local or general anæsthetics for veterinary purposes; that there would be no increase of suffering in the animal world and that progress of veterinary science in certain directions would again become legal. As long as an Act remains unrepealed it is the law of the land, it must be obeyed by every member of a professional body, because of their special knowledge. If they disagree with it they must get it repealed, they must not contravene it with all the risks of professional disgrace; no Act can be disregarded with the thought that it is dead, obsolete, or not enforceable.

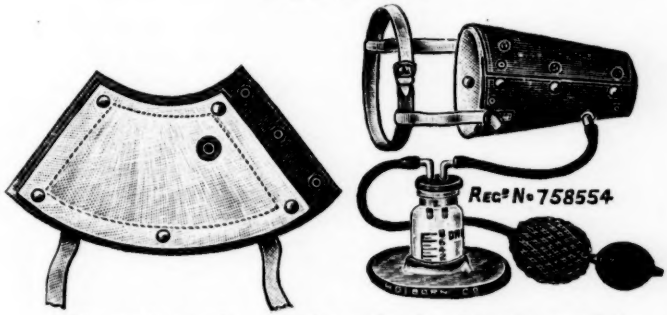
Some of our colleagues who have taken up law might be asked the question, that, in view of the sweeping scope of Section 1 (*a*) of the Protection of Animals Act of 1911, *viz.*:—

> "If any person shall cruelly beat, kick, ill treat, override, over-drive, overload, torture, infuriate, or terrify any animal or shall cause or procure, or, being the owner permit any animal to be so used, or shall, by wantonly or unreasonably doing or omitting to do any act or causing or procuring the commission or omission of any act, cause any unnecessary suffering, or being the owner, permit any unnecessary suffering to be so caused to any animal . . . . such person shall be guilty of an offence of cruelty within the meaning of this Act. . . . . ."

Is there any offence against the Act of 1919 which cannot be dealt with under the Act of 1911? If the answer is in the negative, and many hold this to be the case, then the Animals (Anæsthetics) Act should be repealed on account of this and its own anomalies.

Preparations and Appliances.

Hobday's Chloroform Apparatus with the Holborn Improved Mask.



This mask can be opened out flat for cleaning purposes. It is fitted with a removable washable moleskin cloth lining and a spare lining is supplied with each apparatus, so that a sterile mask can be always at hand.

The masks are adjustable and are made in two sizes. The larger size can be adjusted from 4¼-in. to 3-in. diameter at the wide end of the leather cone and the smaller from 3½-in. to 2¾-in. These masks are therefore suitable for any size of dog and for cats. The chloroform bottle is now fitted with bent metal tubes (instead of glass, which are more easily broken). These tubes have a large bore, as does the tubing nozzle attached to the mask. The bellows are made of the best cut sheet rubber and have a tube fitted to the intake valve so that a mixture of air and chloroform vapour can be given when anæsthetising very small animals.

The price of the complete apparatus with one mask and two linings is 26s. 6d. It is supplied by The Holborn Surgical Instrument Company, Limited, 26, Thavies Inn, Holborn Circus, E.C.1.

Poultry investigators have apparently agreed to designate the malady produced by the *B. pullorum* as "Pullorum Disease," thus discarding the term "Bacillary White Diarrhœa." Apparently some progress is being made in the control of this malady by repeated agglutination tests of flocks and the removal of reactors. From reports it is evident that the rapid agglutination test and the intradermal test are not as reliable as the slow, tube, agglutination test.—*Calif. Bull.*, No. 486.

Endocrine gland investigations have revealed many interesting and important facts. Recently Greuter, of Switzerland, reported experiments in which he demonstrated that by the injection of a hormone obtained from the anterior pituitary gland there was a marked increase in milk production. This hormone does not initiate milk production during the non-lactating period but increases it in animals that are lactating. This product will no doubt be of interest to dairymen. However, it will be necessary to provide a proper ration, the hormone being only an adjunct.—*Science*, Vol. 72, No. 1862.

The Examination of Milk for Tubercle Bacilli: A Reply.

By D. R. Wood, F.I.C., Somerset County Laboratory.

In replying to Mr. H. T. Matthews' very interesting criticism of my paper in *The Analyst*, I desire, in the first place to acknowledge his courtesy in sending me an advance copy of his paper for the *Veterinary Record* and inviting a reply from me.

At the outset I would like to make it quite clear that no disparagement of the valuable service of the Veterinary Profession was intended by me; the intention was rather to show that the tracking down of cows responsible for the presence of tuberculosis bacilli in milk is attended with very considerable difficulty, that it is the work of a veterinary surgeon who has made a special study of the subject, and that, without such a specialised knowledge, an attempt to discover the infective cows or herds is likely to fail without fractional biological tests of the milk of the whole herd.

As indicated in my paper, this was my experience prior to the appointment of a whole-time officer. Since my paper was sent up for publication last January, a whole-time officer has been appointed. Far greater success has attended his attempts to track down infective cows; in the majority of cases he is successful in finding at least one, but instances still occur when he is unable to detect any cow with tuberculous mastitis, while the biological test shows that such a cow or cows are present and, *vice versa*, an animal is sometimes suspected and found innocent biologically and by *post-mortem* examination.

Mr. Matthews records five cases of tuberculous mastitis in which tubercle bacilli were found in the milk microscopically and not biologically. In view of the fact that something like six tubercle bacilli are capable of setting up infection in a guinea-pig, and of the extreme improbability of finding these bacilli microscopically when less than this number are present in the whole of the deposit from the milk, I can only attribute this to faulty technique or faulty tabbing of the guinea-pigs. On several occasions my results have been called in question and the inoculation test has been repeated with identical results. Of course in a large number of samples a few may be encountered containing the critical number of tubercle bacilli in the amount inoculated, then, when duplicate tests are made, one guinea-pig may be infected and the duplicate escape. I would like to state here that I have never yet failed to find tubercle bacilli by inoculation when microscopical examination has shown them to be present.

As regards microscopical examinations, it must be pointed out that Mr. Matthews and I are dealing with milk of very different category. He is dealing with city herds, inspected three times a year, in which cows with tuberculous udders are found from time to time. The majority of his samples come from such cows, and these are in what one may call the clinical stage of this disease. The samples I have to deal with are largely from cows in the ante-clinical and early clinical stages of the disease: attention has been directed to them only by the biological test on bulk samples.

For it is logical to assume that the tuberculous mastitis passes through what may be broadly regarded as three stages: (1) the early stage not detectable by veterinary inspection, however capable, but detectable by animal inoculation; (2) the middle stage, detectable by skilled veterinary inspection and by animal inoculation and (3) the third stage evident to the farmer.

I frankly agree with Mr. Matthews in his remarks on the influence of psychology on the microscopical search for tubercle bacilli. The man who knows from clinical examination that tubercle bacilli are there and that if he hunts long enough he will eventually find one or two is far more likely to do so than the man who has not this initial bias. The bacteriologist approaches the investigation from a different aspect; he can only devote a reasonable and limited amount of time to each specimen. The finding of a few isolated acid-fast bacilli would not in itself afford conclusive evidence of tuberculous mastitis, for the existence of other acid-fast bacilli cannot be ignored. In Table IV of my paper it will be seen that acid-fast bacilli of doubtful morphology were found five times; I have no information of the nature of the acid-fast bacilli found in the two samples from Wiltshire which were negative biologically.

The problem of the investigation of county herds and city herds is very different. The latter can afford an adequate staff for periodical inspection of every herd, the former has a vast number of herds scattered over a large area and a wholly inadequate veterinary staff. The mode of attack is therefore different, routine inspection of the herds is impossible and nothing really adequate can be hoped for; one therefore calls in the aid of sanitary inspectors to sample the herds and so direct the veterinary officer to the most profitable fields of investigation.

Tuberculous Cattle.

At Ayr recently a Lincolnshire farmer brought an action to recover the price of an Ayrshire heifer he bought at an auction sale, *plus* the cost of transporting it, on the grounds that the animal did not conform to the warranty under which it was sold. The Sheriff, however, found that "there was no express statement in the catalogue of the sale that the animals were free from tuberculosis, or that they were guaranteed to be free from tuberculosis when sold, and he was unable to find anything in the catalogue, to support the pursuer's contention that such guarantee was implied. The only guarantee was that the animals had all along formed part of a herd which was subjected to special precautions to ensure its freedom from tubercle infection, and that they had successfully passed a certain test about a month before the date of the sale. There was, of course, no assurance that any cow which once successfully passed the test would always do so."

"This goes to show," comments *The Meat Trades Journal*, "how very necessary it is to have a warranty clearly stated at time of purchase. Doubtless the buyer was aware of the special precautions taken by the vendor to maintain his stock free of tuberculosis, and believed he was perfectly safe in bidding £48 for a young heifer. The fact, then, that is it a gamble to take home a beast from a tested herd proves how great a risk a butcher runs in buying from a miscellaneous collection of cows and heifers in the open market, when the percentage affected with tuberculosis throughout the country is admittedly high."

In the eight months ended August last 2,668,184 cattle were slaughtered in the South American frigorificos, as against 2,577,202 in the corresponding period of the previous year. The number of sheep was 3,714,093, compared with 3,514,559; and the number of pigs 322,295, as against 357,430.

Surgical Aids, etc.*

By Lieut.-Colonel H. T. Ryan, D.S.O., F.R.C.V.S., Cork.

I must ask you to forgive the scrappy nature of this paper, as it was written at odd moments, during what is, I think you will agree, the busy season of the year.

I had some difficulty in choosing a title, as it was my intention to help the private practitioner in the ordinary, common variety of cases with which he may meet.

To begin with the humorous side of the question, I was once called urgently by a well-known surgeon to see a six-months-old fox terrier pup which had been run over by a governess trap. On arrival I found the dog surrounded by cushions on a Chesterfield in front of the drawing-room fire.

There was a mark where the wheel had passed over his loins. I gave a casual look at the dog and saw he was not in pain. I just felt his legs and said that if they kept him on a sloppy diet for a few days he would be all right. The surgeon looked surprised—I could see that he was vexed—and he said: "But you have not examined the dog; how do you know that his back is not broken?" I replied: "Well, I saw him wag his tail when you came into the room, and that is enough for me." "Oh!" he said, "I never thought of that," and the sequel was that the surgeon did not ask any more questions—and the dog got better.

Large Incisions.

Some years ago, whenever I came across large abscesses, such as abscesses of the knee, fistulous withers, etc., etc., I always slit the cavity from top to bottom. The result was that cases did well but took a long time to heal.

I now find that in a number of cases one can obtain the same result by making two smaller incisions with a gap of skin in the middle. This gives two healing surfaces instead of one. For example: instead of making an incision 9-in. long, make one incision 3-in. on top and another incision 3-in. at bottom, with an intervening space of 3-in of sound skin. It will readily be seen that two wounds 3-in. long will heal much more quickly than one wound 9-in. long.

Curbs.

For the past 25 years I have found that the quickest way to get rid of a curb is to jump the horse regularly.

I am referring principally to horses four or five years old. If the animal has a good broad square hock with a large os calcis and he is lounged four or five times a week over a low wall or pole—or both—and if the height of the jump be increased each day by one inch till it is raised to 3½ or 4 feet high, it is extraordinary how quickly some curbs vanish. This treatment has only let me down once, and in this case the horse had what I might call a soft curb and I think the animal was suffering from a luxation of the os calcis.

On numerous occasions I have advised owners to buy young hunters with curbs (provided the hocks are formed as described above) and so far I have had no reason to regret the advice I had given; in fact, in a number of cases the curbs had vanished at the end of the season.

On the other hand, there is the horse with the weak sickle-shaped hock or the straight hock or the progeny of certain sires, where it is not advisable to recommend purchase.

Burns.

I wonder if it is generally known that vaseline acts as a blister on a burnt surface.

When I was a pupil with the late Mr. T. D. Lambert I was accustomed to see vaseline rubbed on the legs after firing, instead of blistering.

For my own information—after firing a horse's tendons both fore—I once rubbed vaseline on one leg and cantharides blister on the other. On the following day the leg rubbed with vaseline was bigger than the other.

I once saw an instance where five horses had been badly burnt and the attending veterinary surgeon had rubbed vaseline on them all, with the result that three died. One of the three was a hopeless case, but I think that the other two would probably have recovered if vaseline had not been used.

Girth Gall.

Girth gall is found to be a most annoying affection to treat, and some horses are incurable as long as any of the ordinary patterns of girths are used.

I have met with a new pattern of girth which has been well tested in three hunting stables and is found to be admirable.

As you will see, it is a plain leather girth divided into three equal parts by means of two cuts seven inches long. To the end of each strap is attached an ordinary girth buckle (there are three buckles on each end of the girth). From where the above cuts end, there is a space of three inches left uncut and then two more cuts extend for 26 inches, where they cease. Then there is another gap of three inches left uncut, after which the remainder of the girth is again divided into three parts seven inches long, with three buckles attached to ends as previously described.

The main portion of the girth is now divided into three equal straps. The centre strap remains in its original position. The two outer straps overlap and cross, so that for a space of seven inches in the middle the girth resumes its original breadth. It is, however, only one inch broad where the straps lie on top of one another; that is at the place which usually galls.

Of course the old-fashioned cord girth is very good, as it does not gall young horses, but it is expensive and does not last long. A man who has considerable experience tells me that this new girth is the best he has yet seen.

As a temporary measure there is one girth which has often come to my aid. It is made of ordinary common soft rope three to three-and-a-half inches in circumference.

Obstetrics.

Last season I was called to a foaling case in which both fore legs were in the passage and I could just get the tips of my fingers on to the foal's neck.

The mare was a big powerful animal and I saw it was hopeless to try to get a normal presentation. I could not reach far enough forward to get a wire round the neck and so sever it. I explained the situation to the owner, who gave me a free hand to do what I thought best. I proceeded to deliver the foal by forcible traction. I gave the mare 2 oz. chloral hydrate and then chloroformed her. I had only three men to assist me, and not having pulleys

* Paper presented to the Veterinary Medical Association of Ireland, at Cork, July 25th, 1930.

I think I would not have succeeded if I had not adopted the following method, which I learned from Canadian woodmen in France, when I saw them tightening ropes for horse standings. For the sake of clarity I will describe the roping of one fore leg. Having placed a noose round the leg, I put a simple, small loop on the rope, about two yards from the mare (the same knot which is used when making the loop for the neck in a casting rope). I then brought the end of the rope round a tree, and threaded it through the loop. I now got men to pull on the end of the rope and successfully delivered the foal.

It is simply a lever of the first class, and it practically doubles your man power, *minus* the friction at the loop. On another occasion the wheel of a cart made an excellent fulcrum.

Whilst on the subject of obstetrics, I should like to bring to your notice some wire ropes which I have found very serviceable, as they are not inclined to slip off the leg like cotton or hemp, and, being made of different kinds of wire, they are not puzzling as is often the case when ropes are all of the same pattern.

As you all know, a head or a leg may be more easily secured with a wire than with a rope.

On the next occasion it is my intention to try an insulated wire such as is used in motors, because I am rather reluctant to put an unprotected wire round the neck or the leg of a live fœtus.

Lameness.

Last summer I was asked to see a horse in a bread van. He had pulled a heavy van six miles from the city, then stopped and refused to move. I found the horse to be lame of the near hind.

When eventually we got him to move, he would do so only in a circle, with the sound leg in the centre of the circle, refusing to take the foot off the ground. I examined the animal carefully and I could not find any fracture of the pelvis, or anything to account for the lameness. I was beginning to feel puzzled when, by chance, I looked at the mucous membrane of his eye, and I found it almost white. I then knew I had a fractured pelvis without displacement, with hæmorrhage from the obturator artery.

The horse was with great difficulty moved into a field a few yards away. As it was summer time, he was left there all night. During the night he lay down, and it was with difficulty that he was made to rise in the morning.

He had lain on the bad side, and when examined it was found that his hip was down, but eventually he made a good enough recovery to resume his usual work.

Some days later it came to the owner's knowledge that the horse had slipped up on a concrete yard that morning before he was put into the bread van.

I must admit that, if it had not been for a chance look at his mucous membrane, I should have been puzzled and unable to give the owner a definite diagnosis.

Lameness in Horses with Odd Fore Feet.

It is with a certain amount of fear and trepidation that I broach the next subject, *viz.*, lameness in horses with odd fore feet. I say fear and trepidation, because I expect that I am leaving myself open to much criticism, probably to be followed later by blame. I would advocate this treatment, however, only in specially selected subjects, and I would ask the younger members of our profession to adopt it only when all other treatments have failed.

I have had three valuable horses, two of which won numerous point-to-points during the past two seasons, and I was absolutely at my wit's end as to how I should keep them sound, until I adopted the following treatment.

They were horses with blocky feet and one of them had an injury to the coronet as a result of his dam standing on him when a foal. I found the usual splint, then a thickening round the coronet, then the foot hot on certain days, whilst visions of a contracted foot, rheumatism and navicular disease crossed my mind.

The animals would come up sound from grass, but after the first or second shoeing they always went lame, particularly if exercised on the road. Peat moss or sawdust bedding seemed to agree with them better than straw. One day they would be sound and the next day lame. There was nothing to be learned from the wear on the shoe, and various patterns of shoes did not improve matters until I hit on the following plan :—

When brought up from grass the horse was sent to the forge and the farrier was instructed on no account to rasp the foot or to try to get the foot level or make it match its fellow. He was instructed to heat the shoe gently, just get a level bearing and nail the shoe on thus, not altering height of heel and length of toe and, if the inside and wall was not level with the outside, it was to be left so.

When the shoe was worn out it was taken off in the horse's stable, the foot brought forward and the wall rasped downwards all round to prevent chipping of the wall. The horse was then exercised on the road for one, two, or three days, till the foot was sufficiently worn down ; then the shoe was applied as before. By this method the horse wears his foot exactly as nature wants it.

It will now probably be noted that the horse requires a much higher heel than any good farrier is prepared to let him have, and that there is a close relationship between height of heel, length of toe and amount of sole which the animal requires to keep him sound—and this can be obtained only by natural wear. In other words, if a horse's feet are odd by nature, let them remain odd.

I might add, that the height of heel and length of toe etc., affect the whole column of bones above.

In three cases I have had horses working sound for three years by this method, and if I had not adopted it, I feel certain they would all have developed ringbones, as in each case the thickening round the coronet vanished.

Six men have been fined a total of £1,000 in Oporto for selling pork and sausages unfit for human consumption, says Reuter's Lisbon correspondent. They are alleged to have mixed dog and cat meat with pork in the manufacture of sausages, and also to have used diseased pigs. They have been in business for 15 years. A request has been made for their deportation to Portuguese Guinea.

Mr. O. E. d'Avigdor-Goldsmid, who acted as arbitrator on questions relating to the adoption of the Weinberg Casting Pen by the *Shechita* Board, has issued his award. This includes the payment by the Board of a royalty of 3d. in respect of every animal slaughtered during the period of ten years, for the killing of which animals a Weinberg machine is used. The Board will also make a capital payment of £1,000 in consideration of the grant to them of the licence to use the machine and also £1,500 in advance in anticipation of royalties to be paid.—*Jewish Chronicle.*

Instruments—their Use in the Treatment of Bovine Sterility.*

By E. A. Schmoker, M.Sc., D.V.M., Evanston, Illinois.

Instruments, in their relation to sterility work, have both their friends and enemies. Some authorities consider them both essential and effective, while others consider instrumentation unnecessary and even dangerous. They claim to obtain better results from manual manipulation of the reproductive organs, largely confined to massage and vaginal douches, with feeding of mineral powders and "breeding powders."

Two pioneers in the investigation of the diseases of the reproductive organs, Professor Albrechtsen of Denmark and Professor Hess of Switzerland, have during their period of activity held two rather opposing positions, both as to the etiology of sterility and the method of treatment. Albrechtsen in most cases was able to diagnose a metritis or cervicitis and treated the condition by the use of instruments and irrigating solutions. Hess attributed many of the ailments causing sterility to ovarian disturbances with possible secondary pathological changes in the uterine mucosa and mucosa of the cervix. His treatment was largely limited to the manipulation of the ovaries, while instrumentation and uterine irrigation found great disfavour with him.

Professor Albrechtsen had many followers. When sterility work became better understood and increased in popularity in this country, many of the veterinarians in localities where the dairy cow constituted the main source of income, and breeding irregularities were common, equipped themselves with a complete array of so-called sterility instruments and were largely under the impression that the more elaborate the collection, the more dependable would be the results and incidentally the greater the financial returns. Irrigators, forceps, uterine retractors and strong iodine solutions were displayed with considerable pride and some of the cattle owners, no doubt, were impressed too with the shining, nickel-plated "tools." The more enlightened stock owner was a bit more sceptical and looking over the display would see some rather dangerous looking forceps, with sharp alligator teeth and long, powerful jaws. He would also see an irrigator come out of the cervix of a badly infected cow and after being submerged for a short time in a pail of antiseptic solution, it would be passed into the uterus of another animal. Possibly at this time the irrigator failed to work. It appeared to be plugged up and the operator would remove it. To dislodge the obstruction he would swing it through the air and behold, a liberal collection of pus removed from the previous cow would emanate from the instrument and become scattered over the barn floor.

It is undisputed that instruments under conditions as described above, and these conditions are not altogether exceptional, would disseminate infections rather than check them. Furthermore, instruments not properly constructed for the purpose intended may do considerable harm. Certain uterine retractors (unfortunately still illustrated in most of the newer catalogues) are altogether too destructive to the soft tissues of the cervix and should be discarded on account of the extensive crushing action they exert on the tissues.

Another disadvantage that may be attributed to the use of instruments is their improper handling by the operator. Being manufactured from hard steel (with the exception of rubber catheters) and used in the treatment of inflamed soft tissues that are easily injured and lacerated, it is possible to do a great deal of harm by injuring the mucous membrane of the cervix or uterus and creating new avenues for the infection to spread, permitting pathogenic organisms to find their way into the deeper regions of the organs treated. Deep-seated infections are nearly always very stubborn to treat and frequently cause abscessation and adhesions, both of which spell disaster for the breeding career of the subject.

Advantages of Instruments.

Instruments, if properly used, offer definite advantages both from a diagnostic and therapeutic standpoint. Abnormal secretions within the uterine cavity can be readily and quickly detected by means of an exploratory uterine irrigation.

Examination of the vagina and exterior of the cervix *in situ* is much more readily accomplished by means of a speculum and artificial light than by mere manual manipulation.

Retraction of the uterus for manipulation through the rectum is much more easily accomplished by means of a properly constructed uterine retractor than when attempted by bi-manual manipulation, which very often induces troublesome straining.

Topical applications to the cervical mucosa require dressing forceps and could not be applied in any other way. Occasionally, but very seldom, it is necessary to puncture very thick-walled cysts by means of an ovarian knife, while ovariectomy is never to my knowledge performed in this country without instruments.

Instruments have their place in sterility work. While no doubt they are not used as extensively as formerly, it is probably due to the fact that their indications are fewer than was formerly supposed and, like milking machines in the dairy industry, they will serve some operators well while others experience a great deal of grief with them.

The danger of transmitting infections from one animal to the other by means of improperly sterilized instruments has been taken into consideration and an illustration given that was, if somewhat exceptional, not without its prototype in the actual practice.

When the gynæcologist or surgeon introduces an instrument in the cervix or uterine cavity in a human patient it is an operation that does not lack in dignity, having been properly preceded by an adequate preparation of the surgical field and the sterilization of the instruments. In similar work on the dairy cow there is not always sufficient care exercised in properly sterilizing the instruments between each animal to be treated. This may be due to the fact that no very satisfactory method for sterilization of instruments so far has been evolved; at other times the remuneration is too small to warrant the extra equipment and time necessary to sterilize instruments properly, while in still other cases the element of carelessness on the part of the operator is also to be taken into consideration.

* Reproduced from *The North American Veterinarian*, August and September, 1930. Vol XI, Nos. 8 and 9.

Sterilizing Instruments in the Dairy Barn.

The criterion of any surgical procedure should be cleanliness. Our colleagues, the small animal practitioners, have in this respect great advantages over the dairy practitioner. Their equipment is more stationary and of such nature that cleaner and neater surgery can be done without the handicaps the country practioner encounters. On the other hand, the dairy practitioner very often is dealing with a hardier patient than are some of the dropsical candy-fed lap dogs presented for treatment to the small animal practitioner. When instrumentation is indicated in sterility work, however, lack of cleanliness does not necessarily endanger the life of the animal but may produce a local infection that may forever terminate the breeding career of a valuable blood line. In large establishments live steam is usually available and the sterilization of instruments is comparatively simple. In the smaller dairies, however, this is not the case and should boiling water and steam be available it would in most cases be found in the milk house and not in the barn. Giving considerable thought to the problem, we contrived the following method:

While making an appointment to treat sterility in a herd, instructions are given over the 'phone to have a milk can full of boiled water ready. Upon entering the barn a wheelbarrow, which is almost always to be found, is drafted into service. Placing a few boards over the top, a platform is created to receive plans, irrigator and instruments. As a rule I employ a lay assistant, and while I look over some of the animals with the owner the assistant gets from the car a camp stove, generates and lights the gas and sets the instruments to boil. Alongside of the instrument pan is another pan filled with some of the boiled water out of the milk can, and an antiseptic added, preferably some hypochlorite solution.

In the meantime the prospective "treaters" have been checked over and the assistant brings the wheelbarrow with the equipment near the animal to be treated. The instruments are lifted out of the boiling water and placed into the cold antiseptic solution. Immediately after their use they are dropped back into the boiling water and, while the record cards are being filled out and instructions given to the owner, the instruments have again been boiling for about ten to fifteen minutes and are reasonably safe to be used on the next animal.

How Should the Instruments be Handled?

If sterilized properly and handled gently and with ease and care, little, if any, damage is done to the reproductive organs. If sterilized properly but handled awkwardly, considerable harm may be inflicted. If sterilized improperly and handled roughly, incalculable damage may be caused.

Due consideration must be given at all times to the nature of the instruments. They are constructed from hard steel and are so shaped that within an inflamed friable uterus they are particularly adapted to perforate, lacerate or otherwise injure the uterine wall.

Placing the Uterine Retractor.

Good judgment dictates that a uterine retractor to be placed into the cervix or vaginal portion of the external *os* should be constructed as to do a minimum amount of damage. Instruments with teeth and powerful jaws cannot be condemned too severely. Good judgment further dictates that before placing the uterine retractors into position, the vagina should first be cleaned and the posterior cervical portion painted with Lugol's solution of iodine. If this precaution is not taken the external *os* may be bathed in pus and the inserted instrument carries the infection into the deeper tissues. One uterine retractor is all that it is necessary to insert. Two will do more harm than good and offer but little, if any, advantage.

How to Pass an Instrument Through the Cervical Canal.

Frequently when cervicitis is present, due to the swelling of the inflamed mucosa, the cervical canal deviates from the normal course. Even if no deviation has taken place the canal itself does not pass through the cervix in a straight line, but has three or four decided curvatures that have to be passed by the instrument when introduced. If the retractor is implanted to the left of the external *os* and traction is applied there is a slight tendency to pull the cervix to the left or *vice versa*. The irrigator being introduced will penetrate into the cervix a short distance and "jam" against a transverse fold of the cervical mucosa. From now on, further progress might be rather difficult and if a little impatience is added, considerable harm may be done to the cervical mucosa. On the other hand, after the uterine retractor has been put into place it may be withdrawn slightly with one hand while the other hand is passed into the vagina. Grasping as much of the cervix into the palm of the hand as the flexibility of the vaginal wall will permit, the instrument may then be passed into the cervical canal and be guided by the hand along the cervical wall, thus facilitating the passage to a great extent.

How to Keep the Metal Irrigator in the Proper Position.

It is our practice never to go further than the body of the uterus with a catheter, especially when it is constructed of metal. The body of the uterus is very small and the catheter may either slip forward or backward out of its proper position by the least movement of the animal or the operator. To avoid the necessity of a frequent readjustment as well as to avoid perforations of mucous membrane or injury by thrusting the instrument too far forward, we have made it a practice to fix the catheter within the grasp of one's hand, with the uterine retractor in a definite position. The uterine retractor in a sense is stationary; no matter if the cervix is drawn well back or permitted to go forward the retractor will follow one way or the other. However, it is different with the irrigator. If the latter is held firmly in the left hand and the right hand pulls on the retractor the irrigator naturally moves forward. If traction is released on the cervix it slips forward and the irrigator, instead of being in the uterus, may lodge in the cervical canal or the vagina. By passing the middle finger of the left hand between the irrigator and the retractor after they have been placed in the proper position the two instruments can be held in the same relative position at all times.

Uterine Massage to Assist Return Flow.

In cases where the uterine cavity is to be irrigated to remove morbid exudates it is absolutely essential to stimulate a return flow by uterine massage. If the return flow depends only upon intrauterine pressure it is incomplete

The Veterinary Record.

November 8th, 1930.

The Animals (Anæsthetics) Act, 1919.

Many members of the Veterinary Profession will be in agreement with the view that the time is ripe for a revision of the Animals (Anæsthetics) Act, 1919, and, in principle, with the criticism of the provisions of that Act by Mr. A. W. Noel Pillers, printed elsewhere in this issue of the *Record*. Some will doubtless go further and suggest that the act should never have been passed and ought to be repealed.

It seems a pity that Mr. Pillers specifically excludes from his review of the Act the facts which led up to it, for therein might be found some possible answers to his questions.

If we rightly recall the circumstances precedent to the passing of the Act it would seem that the veterinary profession were not entirely free from blame, if blame there be, for the passing of the Act. It appears to be unfortunately true that Section 1 (*a*) of the Protection of Animals Act of 1911, perhaps because of its sweeping scope, did not cover those cases which are provided for by the Act of 1919—unfortunately, because there were many veterinary surgeons who did not fully realize the moral obligation to use the merciful adjunct to surgery which had become universal in human practice, and this probably either from an exaggerated view of the risk incidental to the use of anæsthetics or else from a lack of courage in explaining quite definitely to owners when an anæsthetic was considered necessary.

One can hardly imagine the parent or guardian of a child who required an operation stipulating with the distinguished surgeon who was to perform the operation, that it must be done without an anæsthetic, and that the child must not be kept in a recumbent position during the operation. Yet such orders or suggestions regarding animals were frequently listened to and even agreed to by veterinary surgeons in days gone by.

If the use of anæsthetics in all but the most trivial operations has become more general in the practice of veterinary surgeons, as appears to be the case, then it can confidently be answered that the object of the Legislature in promoting the Act has to a large extent been accomplished.

Mr. Pillers rightly calls attention to anomalies in the schedules of the Act and to the exclusion of certain animals from its protection. Here again a recollection of the facts which led to the Act might be of assistance.

It may be remembered that this was not a veterinary surgeons' bill, and that many vested interests contended with the promoters while it was being considered. The voice of the veterinary profession in legislation is but feeble; we have no direct representation of our interests in Parliament, and our voting power in the constituences is relatively small—hence the victory of vested interests over our judgment of what is right. Moreover, the economics of agriculture, having been forcibly placed before our law makers, demand consideration. If, for example, the castration of lambs had been placed, say, in the third schedule (and why not?) the veterinary surgeon's account for castrating 100 lambs, each of which had to be anæsthetised with a general anæsthetic, might have been somewhat of a shock for the farmer.

Clearly some compromise was necessary; probably that compromise now requires revision.

Section 3 of the Act places in the hands of the Ministry of Agriculture very wide powers for such revision.

The modern method of legislating by departmental control is open to much objection, but here at least it may prove useful, for while the influence of the veterinary profession on Parliament may not be great, its united voice, speaking through the National Veterinary Medical Association, has considerable weight with the Ministry of Agriculture, and that weight will be increased when all members of the profession are members of the Association (Non-members please note.)

May it not be time for that voice to be heard in favour of revision of the Animals (Anæsthetics) Act?

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and may be perfectly clear, while, on the other hand, massage may bring out great quantities of purulent material. In this connection I wish to invite attention to the desirability of not passing the end of the metal catheter beyond the uterine body and into the horns. If the irrigator is half way down into one or the other horn and the uterus is " lifted up " into an upright position for massage, it is evident that injury to the horn, in which the catheter happens to be, is almost unavoidable. On the other hand, if the end of the catheter rests in the uterine body the fluid will pass into each horn, and the body of the uterus itself, due to its anatomical construction, bulges up dorsally and in this way permits a rotation of the catheter without the latter touching the mucous membrane and inflicting any injuries.

Clinical and Case Reports.

Tetanus.

By M. Tailby, M.R.C.V.S., Edgbaston.

I noticed in your issue of 13th September, a useful, practical article on "Tetanus," by Major W. Ascott.

I have had some experience on the subject in the course of 62 years' practice.

I used to leave my patients (the horse) to nature and the care of the life force. In one case, which occurred 50 years ago, I was called in by a doctor to see his mare. She had "picked up a nail" three weeks previously—a fact which he had forgotten—and he was using her until the day previous. He asked me what the case was—she was in a loose box—and immediately I replied "tetanus."

He thought I was premature, but asked "What medicine do you advise? I said "none" and he agreed, saying that he thought medicine to be of no use. Replying to his enquiry as to the course to be pursued, I stated that the mare must be kept quiet, allowed plenty of fresh air and water, oatmeal and water *ad libitum*, and clothed and bandaged according to the weather. She should have one man to attend her and the stable door should be kept locked.

He further asked me about the probable time of recovery, receiving the answer, "If she survives three weeks, she will, by the lapse of 12 or 13, recover." The mare did so and went to work in the manner prescribed.

The last case I had (acute) was due to a small incised wound on the neck of a van horse. I immediately applied "Tetanin" but the animal died. In all, I have had about 14 or 15 cases, half of them sub-acute; one acute case, arising from injury to the orbital arch, recovered. Another case, very acute, died in three days from "sand crack" of the hind foot.

An Unusual Case of Bovine Tuberculosis.

By J. Howard Jones, O.B.E., M.R.C.V.S., Chief County Veterinary Officer, Glamorgan.

A heavy milking cow (third calver) having calved, ten days when observed, was found to have the following abnormalities:—

(i) An enormous punctured abscess in, and obtruding from, the area denoting the seat of the left popliteal gland, from which a whitish, mucoid substance, of the consistence of thin jelly, was constantly discharging. Upon making inquiry into the history of this abscess, the owner (a self-opinionated "doctor" of cattle) said that when he bought this animal with her previous calf at an auction sale, he got her at a reasonable price, because other buyers were suspicious of a small swelling, that all could detect, where the abscess could now be seen. It did not then seem to bother her at all; and she again stood to the bull. Then it had started to enlarge and he being a "useful man with the knife" wished to open this lump, but he restrained his hand until she had passed her seventh month of pregnancy—that being, he said, the obviously proper time to operate (!). After opening the abscess, and to date, he had been expressing about half-a-pint of the white jelly each night and morning.

(ii) Further observations revealed the following facts:—That whilst this animal, generally, had the appearance of normal health to a casual observer, she also had the most bounding jugular pulse it has ever been my lot to watch. Her respirations were slightly accelerated and her temperature varied during the two days I had her under observation, from 101·6° F. to 103·8° F. She would cough upon one's simply touching the trachea, turn round, and lick herself and she constantly chewed her cud.

The owner remarked that she still ate well, but since calving she had become slightly particular in her choice of diet.

Microscopical examination of some of the discharge from the abscess revealed the presence of a multitude of multi-neuclear lymphocytes and occasional large cocci, but our search through numerous slides failed to show any acid-fast bacilli; these latter were, however, teeming in a particle of sputum collected from her expectorate.

Post-mortem Examination.—This revealed a miliary tuberculosis of both lungs, all internal organs showing further evidence of generalisation. A beautiful specimen of tuberculous ulceration was demonstrated in the tracheal fold. The left popliteal lymphatic gland was a calcified mass, weighing 7 lbs. 4 ozs. when stripped of its surrounding fibrous and œdematous tissue. The iliac and precrural glands on the left side were all tuberculous.

The jugular pulse was accounted for by finding a piece of steel-cable wire to have penetrated the diaphragm, its proximal end implicating the pericardium. There was some œdema about the sternum.

Conclusions.

The popliteal gland being the most calcified lesion discovered, I contend that infection was most probably introduced by an "infection-carrying" foreign body (such as the prong of a stable-fork) penetrating the musculature of the hind leg, thereby infecting the lymph vessels and glands, from which generalisation could take place at any moment—but that is only my surmise.

It is quite impossible to imagine the healthy appearance of this animal up to the time of calving, when one considers the various disease and death-producing phenomena which she disclosed at her slaughter and *post-mortem* examination.

World's Poultry Congress.

Copies of the papers read at the recent World's Poultry Congress can be obtained from the Ministry of Agriculture at the price of 6d. per volume post free. There are six volumes, as follows:—A, Breeding and Incubation; B, Nutrition and Rearing; C, Diseases and Their Control; D, Economics (including Marketing); E, Education and General; F, Rabbits. The authors of the papers are leading workers connected with the poultry industry in various countries, and the papers contain information which should be of great practical value and interest to those engaged in the industry in this country. Applications for any of the volumes should be addressed to the Secretary, Ministry of Agriculture, 10, Whitehall Place, London, S.W.1.

At the recent livestock census in Holland pigs showed an increase of 470,000.

Abstracts.

[**Fowl Pox (Diphtheria of Fowl) and its Control.** Zwick, W., *D.T.W.* 1930. *29.* 149-53.]

It has been definitely shown that fowl pox and fowl diphtheria are manifestations of the one disease, produced by a filtrable virus. It affects many kinds of birds but is rare in water fowl. Both hen and pigeon pox are communicable to mammals, and the probability is that the viruses of the various animal poxes are varieties of an original pox virus, probably that of variola.

Natural infection is produced by infective material (nasal secretion, broken off pocks, etc.) gaining access to food or water or coming in contact with the eye or bruised comb or wattle. The spread of the disease is helped by such as bird shows and markets; a recovered animal is capable of excreting the virus and is thus a source of danger to the healthy. The virus is resistant and may remain alive on food, cages, etc., for weeks or months. The period of incubation is from 4-20 days.

The symptoms and lesions are manifested by the appearance of knob-like protuberances, which become confluent and covered with a dirty grey or reddish-brown scurf, on the comb wattles and eyes (pox) or of false membrane in the mouth, throat or nose (diphtheria). Both the pox and diphtheritic-like type may be present in the one animal. The death-rate is from 50-70 per cent., young birds succumbing more readily than old. The diphtheritic type is the more fatal.

A differential diagnosis should be made from " infectious catarrh " and " avitaminosis A." Purely catarrhal inflammation of mucous membranes of the head points to infectious catarrh; whitish loosely attached pseudo-membranes, *plus* knob-like millet-sized prominences on the throat mucous membrane indicate avitaminosis, if coupled with a lack of suitable (*e.g.*, green) food. The presence of pocks on the comb or wattle indicates fowl pox; if necessary, a large number of birds should be examined and infection experiments carried out on healthy birds.

Treatment of early cases may be undertaken, but in those advanced, the result is in doubt. Such disinfectants as 2-5 per cent. creolin, 1-2 per cent. sublimate, and glycerine and Tr. iodi (aa) may be employed.

Control.

Prevention.—This embraces a yearly vaccination, careful examination of bought-in birds, and their quarantine for at least three weeks, veterinary supervision of bird markets and shows, and a careful hygienic method of rearing and feeding.

During an Outbreak.—The sick should be separated from the healthy, and those very ill killed and those mildly so treated; finally, the protective inoculation of sound and mildly infected birds.

Protective Inoculation.—The injection of dried, diluted but fully virulent pox material produces solid immunity, but is liable to set up an outbreak of the actual disease. For this reason, the use of attenuated virus-containing material has been investigated.

Immunisation with Chemically Attenuated Virus.—Phenol to a concentration of 0·5 per cent. has been successfully employed to " weaken " the virus and still leave it antigenic. Such a vaccine, although producing a high degree of immunity, often causes " inoculation pox " and thus, of itself, may be the origin of an outbreak of the disease.

Immunisation with Heat Attenuated Virus.—The heating of a suspension of the virus-containing material for one hour at 50°-55° C. produces an antigenic vaccine. Opinions of the result of its use are varied; by some workers good results have been reported, and by others, bad results. It has been suggested that the good results are due to the vaccine containing living virus. The fact that such a vaccine contains living virulent virus renders its employment dangerous.

"Antidiphtherin" (de Blieck and Van Heelsbergen).—This is living virus, originally very virulent, but now so attenuated that its injection into hens is unaccompanied by any danger. Its preparation has not been published, but Baumann is of the opinion that it is a pigeon pox virus. Very good results are reported from its employment.

Immunisation by Biological Methods.—As, in the opinion of many workers, all poxes are of common ancestry, experiments designed to produce immunity to fowl pox by the use of vaccinia, horse and sheep pox virus have been carried out. The results have been negative.

Zwick and his co-workers were able to prepare a vaccine safe for hens by passaging fowl pox virus through rabbits. Attenuation experiments in other mammals have not been successful. Zwick *et al.* have succeeded in immunising hens by employing a mixed fowl-pox-vaccinia virus, previously passaged in cattle.

The follicular inoculation of pigeon pox virus into fowls produces transitory quick-healing eruptions, with no tendency to generalisation. This is followed by a solid immunity to fowl pox. Further, hen pox virus passaged in pigeons loses its virulence for hens and may be employed as a vaccination material.

The immunity produced by such vaccines as pigeon pox virus or fowl pox virus, passaged in pigeons, lasts for about one year. Birds should be inoculated during the months of June, July and August, and all over six weeks should be vaccinated. During an outbreak, all badly infected birds should be segregated and the sound and lightly attacked should be vaccinated.

J. H. M.

[**Contribution on the Subject of Ruptured Tendons.** Staff and Divisional Veterinary, Dr. Maus. *Zeitschrift für Veterinärkunde,* January, 1930.]

Subcutaneous ruptures of tendons are divided into:—

1. Fascicular or fibrillar.
2. Partial.
3. Complete.

1. Fascicular ruptures are not generally recognised as such and pass for cases of tendinitis. According to Budnowski, occur most often at the check ligament.

2. Partial ruptures (involving many fibres of the tendon, but without complete solution of its continuity) provided there is no discernible gap, are also difficult to diagnose and are counted as tendinitis or tendo-vaginitis.

Hausmann distinguishes three groups, according to their causes.

(*a*) Begins gradually and lies under the tendon sheath. Occurs chiefly in the flexor perforans and perforatus of the

hind legs owing to individual fibres losing elasticity and proving unequal to the normal strain.

(*b*) Occurs suddenly in flexors of fore and hind legs. Caused usually in the perforans by heavy pulling, in the perforatus of riding horses by excessive wear at the fetlock joint.

(*c*) Follows septic infection caused by traumatic injury.

3. Total ruptures are usually easy to diagnose. They occur in either flexors or extensors and are generally caused by excessive strain following a mishap, but may follow neurectomy, diagnostic injections, infectious diseases or partial rupture.

During the course of a reconnaissance exercise last summer the riding horse " Santuzza " stopped suddenly after galloping 100 metres along the high road. The rider dismounted and led the animal to one side on three legs. Examination 10 minutes after showed the following facts :—

The horse made swinging movements with the off fore leg. When the leg was perpendicular, the toe pointed upwards. Now and then the animal tried to stand on the leg. Side view showed no deviation in the position of fetlock and metacarpus except a slight uprightness, while the fetlock, coronet and hoof formed an angle with the apex at the coronary band.

There was a fluctuating swelling in the region of the flexor tendons between carpus and fetlock. Palpation showed that the perforans started to decrease in size at the middle of the metacarpus and ceased altogether a hands-breadth above the fetlock. The horse was destroyed.

Post-mortem.—Examination showed ¼-litre of blood on section through the skin and extravasation throughout the whole flexor area. Longitudinal section through the bones showed complete luxation of the coffin joint. The distal end of the flexor perforans was curled into a spiral.

This unusual case exhibits the following features :—

1. Atypical picture of complete rupture of the perforans in the living horse.
2. A very rare luxation of the coffin joint, in addition.
3. Peculiar curling up of the torn tendon.
4. Total rupture in an unusual part of the tendon.
5. A rupture without predisposing causes.
6. Indirect confirmation through luxation in addition to curling of the tendon, that the perforans was at its greatest strain at the moment.
7. Confirmation through the spiral curling, that the limits of firmness and elasticity coincide.

H. H.

[**Non-specific Granulation Tissue in the Horse; Contributions towards the Determination of its Age.** Staff Veterinary Major O. Nitsche. (*Zeitschrift für Veterinärkunde, November,* 1929.)]

Foreign bodies, in these instances cubes of bone or elder pith, were inserted into the subcutis of two horses after sterilization, and the following fairly well-defined stages in the development of non-specific granulation were noted :—

1. *Migration of Leucocytes.*

i. The first cells to reach the inflammatory focus are Neutrophiles. Visible in large numbers in six hours, reach maximum in about two days. Seen only in small numbers after six days.

ii. Simultaneously Eosinophiles appear. Their count is at first small, increasing from the 2nd to the 30th day. Elder pith causes earlier and greater concentration than bone.

iii. Mast Cells are of no importance. Seen only sporadically after 24 days.

iv. Lymphocytes increase noticeably towards 10 days, reach maximum in 20-30 days, then decrease in numbers.

v. Plasma Cells are distinguishable after 13 days, reach maximum a few days later, and settle in small clumps till about 30 days, when they gradually disperse.

vi. Basophiles are seen after two days; from the fourth day appear in the perivascular region; are present in large masses till the appearance of the connective tissue capsule and the removal of the fragments of tissue and cells (after elder pith at least 40 days, after bone till the end of the experiment, 60 days).

vii. Giant Cells appear chiefly after insertion of bone. Visible after four days, more numerous at 6-10 days, disappear gradually at about 30 days.

2. *Increase in Fibroblasts and Angioblasts.*

i. Fibroblasts begin to increase at two days and keep increasing till at 16-20 days they preponderate over the gradually decreasing migratory cells. With the development of the connective tissue capsule, after 40-50 days, growth diminishes.

ii. Proliferation of Angioblasts begins at the fourth day. After 10 days the first capillaries can be seen. These spread and surround the tissue with a plexus. No diminution of growth occurs till the capsule is complete.

3. *Development of Paraplastic Substances.*

i. The first Connective Tissue Fibrils appear after about six days. They gradually combine to form threads which are macroscopic after 16 days and which completely surround the foreign body in about 24 days.

ii. The first Elastic Threads are visible at about 40 days. Till the 60th day no remarkable increase in the length or thickness of the threads takes place.

H. H.

[**Contribution to the Study of Stomachal Indigestion in the Pig; its Treatment by Pilocarpine.** Aubian, H. (*Rev. Vétérinaire,* 1930, 82, 310-15).]

As one important cause, gluttony may be mentioned, this including the habit of eating anything that comes the pig's way.

The symptoms are : inappetence, the pig being recumbent; hyperthermia is frequent. There is a pause between inspiration and expiration; inspiration is followed by a sound similar to that of the crack of a whip. If vomition occurs, a cure results. Otherwise symptoms of a toxic infection are produced; red raised patches occur on the skin, these being similar to lesions described as urticaria. In certain cases, constipation is present.

Various drugs have been employed to produce vomition in the pig, and the author had found that pilocarpine regularly brings about this effect.

This drug is administered subcutaneously in doses of two centigrammes per 100 kilos body weight. This works out at about 6-7 centigrammes for average-sized pigs, and 10 centigrammes for adult sows. The animal does not appear to be very upset just prior to vomition nor fatigued after it. Some hours after it, it drinks water, and, next

day, the appetite is restored. As after-treatment, sodium bicarbonate may be given daily for two days in the food (10 grammes). It would appear that this method is advisable even when the indigestion has already lasted 2-3 days. Further, the doses recommended would appear to be well below toxic or harmful amounts.

J. H. M.

[**Contributions on the Morphology and Biology of Strongyloides westeri.** Veterinary Major Dr. Frischbier. *Zeitschrift für Veterinärkunde,* January, 1930.]

During experiments at the Army Veterinary Research Bureau on treatment of equine worm diseases, some very small worm eggs were demonstrated in fæces of experimental foals. Their size was 45 by 36μ. In fresh fæces the eggs showed either granulated protoplasm, cording, or formed embryos, which exhibited energetic movements. After exposure at room temperature for some hours, nearly all the eggs contained rolled-up embryos, 10-15μ thick, which showed active rolling movements and which hatched in a further 2-4 hours. It was decided that these were the eggs of *Strongyloides westeri,* which infests the small intestine of young horses. The infestation was massed, 100 eggs being often found in one field on the slide. In the course of time the number of eggs decreased gradually without treatment until after three months they were not discernible.

Special Research.

1. *Cultural Characteristics.*

De Blieck and Baudet placed a 1-cm.-thick layer of infested fæces on flat glass dishes and stirred to a thick paste with distilled water. After being kept moist for 1-2 days at room temperature of 28° C. the surface showed white flakes which consisted of hundreds of filariform larvæ. The author failed to observe the flakes, but found that every thread taken from the surface of the culture, placed on a slide and moistened, swarmed with larvæ which tried to reach the edge of the drop and to remain at the surface edge, between air and water. If one managed to overcome surface tension, it crept along the glass and died as the water evaporated. The same facts were noted by Fülleborn with larvæ of *Strongyloides stercoralis.* He attributes the predilection of the larvæ for the edge of the drop to surface thigmotaxis rather than to acid shortage.

In older cultures there appears on the surface a mycelium —*Mucor mucedo*—which attains a height of 2 cm., and whose sporangia are found to be filled with larvæ which have climbed up the mycelium.

On amœba agar and other culture media the parasites died without further development.

2. *Hydrotaxis.*

Strongyloides larvæ do not withstand desiccation as well as those of other nematodes. Fülleborn concludes that they prefer damp places and that they manage to reach them though they show no hydrotaxis. As the water in a drop of culture medium begins to evaporate the larvæ try to reach the moisture-retaining particles of fæces, leaving the particles again if the medium is damped. Hydrotropic movements are better marked where the larvæ are placed in a culture funnel covered with gauze and kept in a vessel full of water vapour, the degree of which can be varied.

Experiments were carried out in this connection by surrounding the hollow portion of a cavity slide with vaseline and filling it with water. Larvæ were placed on the upper surface of different materials superimposed, and the times of penetration noted. The results were as follows:—Single blotting paper, two minutes. Double or treble blotting paper, five minutes. Thin linen, single or double, five minutes. Frog and mouse skin, average ten minutes.

3. *Size and Structure of Larvæ, according to their age.*

Length increases and breadth decreases with age, the dimensions in μ changing as follows:—

5-8 hours	210-230 long	15-18 wide.
24 ,,	340-400 ,,	15-17 ,,
2-3 days	424-461 ,,	14·7-15·8 ,,
4 weeks	471-480 ,,	13·6 ,,
7 ,,	630-674 ,,	10·5-12·2 ,,

Research in Percutaneous Infection.

Perforation appears to take place through small cracks in the epidermis or through the fissure between a hair and the epidermal layer of its follicle. The larvæ penetrate to the hair papilla, destroy the root sheath, and reach the cutis vera.

In order to ascertain the time which elapses between infection and discovery of eggs in fæces, an area on the flank of a yearling was shaved and moistened, and 3-5 day-old larvæ applied for four hours. The animal became restless in half an hour. After infection the patch was painted with Tinct. iodi. Daily examination of the fæces began on the 10th day and single eggs were found on the 23rd. The number of eggs increased till the 10th day; the infection lasted three weeks. (de Blieck and Baudet in similar experiments recovered eggs in 15, 17 and 21 days.)

To determine the speed at which the larvæ penetrate animal skin, some larvæ were applied to a shaved and cleansed area of skin of a yearling for one hour, and sections of skin and subcutaneous tissue excised two hours later. No larvæ were found. The experiment was repeated with an infecting period of half an hour. In the connective tissue excised immediately afterwards, many larvæ, dead and alive, were found. In mice, larvæ were found in the connective tissue after an infecting period of a quarter of an hour.

It is supposed that both *Strongyloides stercoralis* and *westeri,* after penetrating the skin, pass in the blood stream to the lungs, then to the trachea, thence possibly by the œsophagus to the bowel.

H. H.

It was reported at a meeting of the Lymm Urban District Council that a proposal to institute a regular routine inspection by veterinary surgeons employed by the Cheshire County Council of all milch cows, with a view to the detection of tuberculosis, had been negatived by a conference of representatives of local authorities.

One of Lymm's representatives said that because such inspection would not be a certain means of detection, and the annual cost to the county was estimated to be from £10,000 to £12,000, it was not worth while pursuing the matter further. He contended that the testing of the milk itself was the best safeguard, and they were doing that satisfactorily at Lymm.

Reports.

Statistical and General Report, Army Veterinary Services 1929-30.

The average strength of the Army in Great Britain and Northern Ireland during the year was 13,594 horses and 496 mules: in Egypt, 1901 horses and 798 mules. In Great Britain and Northern Ireland 1,565 remounts of all classes were purchased. Of the above average totals there were in Great Britain and Northern Ireland 3,458 horses in Cavalry, including Household Cavalry, 5,397 horses and 307 mules in Royal Artillery, 529 horses in Royal Engineers, 744 horses and 4 mules in Royal Corps of Signals, 124 horses in Royal Army Service Corps, 717 horses and 143 mules in Infantry Transport, 811 horses in Colleges, etc., 848 Staff, Departmental and Infantry Officers Chargers, 883 horses and 42 mules in Remount Depôts and 78 Military Mounted Police horses. In Egypt the average strengths by branches of the Service were 864 Cavalry horses and 126 mules, 545 horses and 208 mules in Royal Artillery, of which 455 horses were Royal Horse Artillery, 122 horses and 315 mules in Infantry Transport; 262 horses and 89 mules in Remount Depôts.

In Great Britain and Northern Ireland the admissions of horses for treatment were 93·81 per cent. of the average strength, while in mules the admissions were 26·21 per cent. Wastage for veterinary reasons was 5·42 per cent. in horses and 1·41 per cent. in mules of the average strengths. The average ages of horses and mules in the ranks were 10·75 years and 13·36 years respectively. Castings for disease in point of age were 11·57 years for horses, and 14·33 years for mules.

Remarking on diseases, there were 6,197 admissions for injuries, 1,472 admissions for surgical conditions; 1,734 admissions for disease of the digestive system; 1,053 admissions for diseases of the respiratory system; 853 admissions for skin and connective tissue ailments, the chief causes being dermatitis, acne, prurigo, and ringworm; 823 admissions for general diseases, the main causes being simple fever and debility; specific diseases amounted to 426 cases, of which 264 were strangles and 140 influenza. There was nothing to call for comment with regard to mules.

In Egypt the admissions for treatment were 91·79 per cent. of strength in horses and 73·05 per cent. in mules. Wastage for veterinary reasons was 5·77 per cent. in horses and 5·75 per cent. in mules. Injuries, surgical conditions, and digestive diseases were the chief causes of disability.

The Report includes the annual report of the Royal Army Veterinary School, Aldershot, and the annual report of the School of Farriery, Aldershot. At the former, one course of three months' duration was held for regular officers R.A.V.C., four officers attending. There were two courses of twelve days each for Territorial Officers R.A.V.C., eleven officers attending. Two courses in animal management, of one month each, for officers of the combatant branches of the Service, were attended by 35 officers, of whom 33 passed (six with distinction). Sixty-two N.C.O.'s attended at two courses of six weeks each in animal management, of whom 56 passed (three with honours and 10 with distinction). Examinations to the number of 1991 of material for diagnostic purposes were carried out in the Laboratory during the year, 720 vaccines and sera were prepared, and the production and issue of mallein amounted to I.D.P. mallein 2,000 doses produced and 7,105 issued, and 2,916 doses subcutaneous mallein issued.

One hundred and twenty-eight pupils attended the School of Farriery for instructional work during the year, of whom 78 qualified during the period and 40 were remaining under instruction. The percentage of pupils qualifying amounted to 92·85 per cent. and the average period at the School before qualification is 6-13 months. The number of horses shod during the period was 2,258, the number of shoes "put-on" was 8,626, and the number of shoes made was 2,882.

Report of the Civil Veterinary Department, Assam, for the Year 1929-30.

The department was short of the sanctioned cadre and the matter is receiving the attention of Government.

The year was on the whole an unhealthy one and large numbers of cattle in the Surma Valley died of rinderpest. Following floods, many of the cattle were in an emaciated condition, and this no doubt increased the mortality. Over 36,000 animals were inoculated by the "serum alone" method. Inoculation by the "serum simultaneous" method was adopted on a small scale, and it is hoped to extend the practice. Hæmorrhagic septicæmia and foot-and-mouth disease were prevalent and, after a lapse of six years, three cases of glanders were detected. Anthrax and surra outbreaks also occurred.

The three existing hospitals continued to do good work and a new one was opened during the year.

On the whole, the work of the Department was well maintained and the Government of Assam recognise the work of Mr. Harris and his staff. It is stated that more interest in the working of the department on the part of local board members and the general public is desirable.

Antiseptics.

"The term 'antiseptic' is used loosely enough in this country, and has no legal definition," writes "Criticus" in the *Pharmaceutical Journal*. "The Drug Control authorities of the U.S. Department of Agriculture are now investigating preparations sold in America as antiseptics. Dr. J. J. Durrett, 'Chief of Drug Control,' has had examined over a thousand preparations claiming to be antiseptics, and has stated that he intends to see that products so labelled comply with the law. 'If they are labelled with antiseptic claims they must make good as antiseptics. If truly antiseptic they must be able to destroy bacteria when used as directed on the label, or in the case of ointments or salves or material used in compresses or packs and applied continuously for twenty-four hours they may be called antiseptics if they merely inhibit the growth of bacteria.' Manufacturers of alleged antiseptics who do not comply with the law and the Departmental Regulations, which have been in force for some time, will be proceeded against in Court. Dr. Durrett is said to be paying particular attention to gargles and mouth washes, which, claiming to be antiseptic, are merely mechanical in their action."

Eleventh International Veterinary Congress.

Meeting of the Organising Committee.

A meeting of the Organising Committee of the Eleventh International Veterinary Congress was held on Thursday, October 9th, 1930, when the following members were present: Sir John M'Fadyean (President) in the Chair; Dr. O. Charnock Bradley, Lieut.-Col. J. W. Brittlebank, Professors J. F. Craig, S. H. Gaiger, Messrs. R. Hughes, G. H. Livesey, G. H. Locke, J. W. McIntosh, W. Nairn, Major D. S. Rabagliati, Dr. A. Leslie Sheather, Captain R. Simpson, Major A. Spreull, Colonel G. K. Walker, Messrs. J. Willett, W. Woods, Captain W. G. Wragg and Lieut.-Col. T. Dunlop Young.

Apologies for absence were received from: Mr. H. Begg, Professor J. B. Buxton, Messrs. J. C. Clarkson, F. A. Davidson, H. J. Dawes, C. W. Elam, F. W. Emery, A. Gofton, F. L. Gooch, P. J. Howard, J. E. Johnstone, T. E. Jones, G. P. Male, S. J. Motton, J. McAllan; Colonel G. Rees-Mogg, Messrs. H. L. Roberts and T. F. Spencer.

The minutes of the previous meeting, having been published, were taken as read and signed as correct.

Correspondence.

(*a*) A letter was received from Professor Dr. Bang, of Copenhagen, dated August 20th, 1930, acknowledging the receipt of Professor Buxton's telegram informing him of his election as Honorary member of the Congress, and saying how deeply he appreciates the extraordinary honour shown to him. The letter continued, "I think it is a much greater appreciation of my life's work than I deserve, and at the same time I see therein an expression of the kindness to me which is maintained in the hearts of the many friends whom I had hoped to meet in London. I am sorry that circumstances prohibited me from having the very great pleasure of seeing them all. With cordial thanks, yours faithfully, B. Bang.

(*b*) A letter was received from Hofrat Professor Dr. Hutyra, President of the Permanent Committee, expressing his warmest and most grateful thanks to the Organising Committee and staff for the kindness and attention shown to him, and congratulating the Committee in the brilliant success of the Congress.

(*c*) The following letter was received through the Ministry of Agriculture from the Norwegian Civil Veterinary Service.

Oslo, August 20th, 1930.

To the President of the XIth International Veterinary Congress Organising Committee, Sir John M'Fadyean.

Returned home from the XIth International Veterinary Congress, we beg to express to the President our most respectful and hearty thanks for all the hospitality and attention paid to the Norwegian Delegates and members attending the interesting meetings and deliberations of the Congress, which we feel will be of great importance for the future work in the domain of Veterinary and Livestock Services. Our thanks also go to the other Institutions and persons who paid us their kind attention.

Yours respectfully,

Halfdan Holth,
Director of the State Veterinary Institute.
V. Thorshaug,
Veterinary Director-General.

Reports of Committees.

The reports of the followings Committees were received and adopted.

(*a*) *Ladies' Committee*, June 20th, reporting arrangements made for entertaining the lady members of the Congress, which included visits by motor coach to the Tower of London and St. Paul's Cathedral, a river trip to Hampton Court, tour of Westminster Abbey and the West End, visit to Zoological Gardens with luncheon and tea at Messrs. Liberty's.

(*b*) *Executive Committee*, July 4th, reporting arrangements for the opening ceremony, for the Congress Banquet and Receptions.

(*c*) *Finance Committee*, October 7th, reporting the reception of the Treasurer's interim financial statement showing disbursements amounting to £3,082 5s. 6d., which were approved. The report included the following recommendations, which were adopted:—

(i) That the fund remaining over from the Entertainment Fund of the 1914 Congress be named The British Congress (1914) Fund, and that any deficit in the account of the Congress, 1930, be made good from this Fund.

(ii) That the sum of £10 be paid to Mr. E. Haux, late German correspondence clerk, in respect of extra work.

(iii) That an honorarium of four hundred guineas be paid to Dr. Fred Bullock in respect of his services as General Secretary of the Organising Committee.

(iv) That the out-of-pocket expenses of the Honorary Treasurer and Honorary Secretary, including travelling expenses to London on the business of the Congress, be re-imbursed.

An estimate for the printing of the Proceedings of the Congress in three volumes, amounting to £1,200, was submitted.

(*d*) *Executive Committee*, October 7th. (1) The Committee reported that they had been constituted at the closing meeting of the Congress and charged with the duty of preparing the report of the Congress and of presenting a complete audited statement of the accounts of the Congress. The constitution of the Committee is as follows:—The President, Sir J. M'Fadyean; the Hon. Treasurer, Colonel J. W. Brittlebank; the Hon. General Secretary, Professor J. B. Buxton; the chairmen of the respective Committees, namely, Dr. Bradley, Sir J. Moore, Mr. Livesey, Colonel Simpson and Mr. Willett.

(ii) *Congress Proceedings*.—The Committee recommended that the preparation of reports of speeches for publication in the proceedings be left in the hands of the President and Honorary General Secretary.

That wherever possible, without sacrificing the sense, the reports of speeches be condensed.

That the speeches be printed in the languages in which they were delivered, without translation.

Dr. Fred Bullock, General Secretary to the Organising Committee, expressed his thanks to the Committee for the honorarium voted to him and paid a tribute to the excellent assistance he had received from every member of his staff.

Votes of Thanks.

(*a*) Colonel Walker proposed "That the Committee desires to record its appreciation of the excellent work of the Ladies Committee in providing for the entertainment of lady

members." This was seconded by Mr. Livesey and carried with acclamation.

(*b*) The President, Sir John M'Fadyean—" I think we should also record at this meeting our high appreciation of the great services rendered by the Honorary General Secretary, Professor Buxton, in carrying out work of the Congress. He devoted himself and a very large part of his otherwise very busy life during the last six months and more to the business of the Congress, and I move that our best thanks be conveyed to him."

This was carried at once with acclamation.

(*c*) The President—" I should also like to move another resolution of a similar kind in respect of the most important office of Treasurer. It is impossible to imagine that anyone could have discharged the duties of it better than Colonel Brittlebank. He has been an ideal Treasurer. He has done everything he could to gather in money, and when he had got it wild horses only would get it out of him. I move, therefore, that we convey to him our heartfelt thanks and our high appreciation of his excellent services." This was carried unanimously amid applause.

Congress Reports.—An application was received from the Editorial Committee of the *Veterinary Record* for permission to publish in the *Record* copies of the English reports presented to the Congress. It was resolved " That the application cannot be acceded to until the publication of the Proceedings is completed."

Victoria Veterinary Benevolent Fund.

A meeting of the Victoria Veterinary Benevolent Fund was held at 10 Red Lion Square, London, W.C.1, on Wednesday, October 8th, 1930, when there were present :— Lieut.-Colonel J. W. Brittlebank (President), in the chair, Mr. E. Whitley Baker, Dr. O. Charnock Bradley, Professors J. B. Buxton, J. F. Craig, Messrs. G. H. Locke, J. W. McIntosh, Lieut.-Colonel P. J. Simpson, Major A. Spreull, Messrs. J. Willett, W. Woods and Professor G. H. Wooldridge.

The minutes of the previous meeting, held on July 2nd, 1930, having been published, were taken as read and signed as correct.

Apologies for absence were received from Mr. J. Ewing Johnston, Major-General Sir John Moore, Mr. Arnold Spicer (Treasurer), Mr. C. W. Townsend, Mr. Arthur Whicher, and Mr. W. Jackson Young.

Secretary's Report.

The Secretary submitted the following report of new subscriptions and donations received during the past quarter :—

New Subscriptions.

	£	s.	d.
North Wales Division, N.V.M.A.	2	2	0
C. S. Randle (increase)	0	10	6
	£2	12	6

Donations.

	£	s.	d.
V.M.A. of Ireland (*per* J. F. Healy)	2	15	6
D. L. McWhirter	3	0	0
J. H. W. Masheter	2	2	0
A. Payne	5	0	0
J. P. Penhale...	1	1	0
Shipley Cup Competition	3	13	6
Major John Smith, R.A.V.C.	10	10	0
G. Sutton	0	10	6
N. Wales Division, N.V.M.A. (collecting box)	1	7	1
	£29	19	10

Life Member.—It was unanimously resolved "That Major John Smith, R.A.V.C., be elected a Life Member of the Fund."

Cases.

No. 115.—Member, aged 66. The Secretary reported on this case and it was decided to reduce the grant to 10s. for the next four weeks, after which no further action should be taken in this case.

No. 132.—Husband ill and unable to continue in regular employment; three young children. This case was left in the hands of the Executive Committee.

No. 133.—Widow, two sons, ages 22 and 20. After careful consideration it was decided to discontinue the grant of £1 per week after the payment to be made in November next.

No. 144.—Daughter of member; two young children. It was reported that the Executive had made a temporary grant of £1 per week for seven weeks. The action of the Executive was approved and it was agreed that no further assistance be made in this case.

No. 145.—Daughter of member; ill and out of employment. The grant of 10s. per week was continued in this case.

No. 146.—Daughter of member, aged 75. Old age pension. The grant of £1 per week was continued.

No. 147.—Widow, aged 77. Old age pension. Living with daughter. A grant of 10s. per week was made.

No. 148.—Widow, aged 67. Little capital lost through long illness of husband. It was decided to make a grant of 10s. per week for the next three months.

No. 149.—Widow, aged 78. Application for information as to a suitable home. The Secretary was instructed to inform the applicant that the Council were unable to assist in the matter.

No. 150.—Member, aged 70. Ill-health. This case was held over for further enquiry.

Garnett Annuity.—The Secretary reported the death of Mr. James Rowe, who had been in receipt of the Garnett Annuity. It was resolved :—

" That the matter of the election of a new annuitant be placed on the Agenda for the next meeting."

It would be interesting to know whether live stock that are fed on molasses or other feed having a relatively high sugar content evidence decay or caries of the teeth, because it has been found by Bunting and his associates that dental caries was of rare occurrence in children who were provided a diet for a nine-month period containing only sufficient sugar to make the food palatable, whereas this condition was relatively prevalent in another group of children that were given sweets, candy, etc., in abundance.—*Science* 72, No. 1863.

N.V.M.A. Divisional Report.

Veterinary Medical Association of Ireland.*

Meeting at Dublin.

A General Meeting of the Veterinary Medical Association of Ireland was held in the Veterinary College, Dublin, on Wednesday, May 7th, at 7.30 p.m.

The following members were present:—Professor J. F. Craig (President), Messrs. J. Dodd, L. M. Magee, G. Hobson, J. F. Timoney, J. A. Murphy, J. Kenny, P. A. Rogan, J. L. Lynch, M. McCartin, E. V. Kelly, P. A. McCorrie, J. Doyle, T. Hunt, J. Purdy, C. W. Griffin, J. F. Healy, J. J. O'Brien and Professors Kearney, Brown and O'Connor (Hon. Secretary).

The Hon. Secretary announced that the minutes of the previous meeting were about to be printed and would afterwards be circulated.

Letters regetting inability to be present were received from Messrs. McSwiney, Mulcahy, Crea (Fermoy), J. V. Carroll and P. J. Howard.

Discussion.

The members now entered upon the discussion of the paper on "Ragwort Poisoning and Cirrhosis of the Liver" by Mr. Timoney and Professors Craig and Kearney. Most of those present took part in the discussion, and many described cases similar to those recorded by Mr. Timoney, but said that they were not aware at the time that the cause of the trouble was ragwort poisoning or cirrhosis of the liver. Every speaker referred in eulogistic terms to the paper and congratulated the writers on its excellency and usefulness.

It was agreed that there was no direct evidence that the cases of cirrhosis of the liver were due to the ingestion of ragwort, but circumstances were suggestive of this plant being the cause of the condition.

Mr. Magee had a case of several calves dying from an unknown cause until he brought a sample of the hay to Professor Craig, who suggested that the deaths were due to poisoning by ragwort of which there was a large proportion present in the hay. When feeding with the hay was discontinued no more deaths occurred.

Interesting Cases.

1. *Deaths in Sheep from Calcium Tetrachloride.*

Mr. Healy reported a case in which the steward of a large demesne administered tetrachloride capsules to a 100 pedigree sheep on the assumption that they were infested with fluke.

He procured the drug, from a chemist, without any directions except that it should be given fasting. He administered two capsules to each sheep, which had been fed on concentrated diet. Twenty-six sheep died.

Mr. J. J. O'Brien said he found Danistol & male fern 100 per cent. successful for fluke. Calcium tetrachloride was cheaper, more convenient to handle, and was safe with grass-fed animals.

He had used thousands of doses supplied by Parke Davis without any fatality.

2. *Worms in Five Weeks Old Puppy.*

Professor Craig mentioned the case of a puppy, five weeks old, sent in by Mr. Dodd, in which the œsophagus, stomach and intestine were packed with ascarides. The duodenum was ruptured and worms were protruding through the opening.

3. *Enlarged Superficial Lymphatic Glands in Cattle.*

Mr. Magee said he had had many cases of enlarged superficial lymphatic glands in cattle. He always removed them when he knew that the lungs were not affected and the beasts were not pining. All the patients were yearlings.

From one beast he removed on one occasion the two prescapular, the two precrural and the two inguinal lymphatic glands and the animal made a good recovery. He used chloroform as a general anæsthetic.

In a bullock three years old there was an enormously enlarged subparotid lymphatic gland and the pharyngeal gland on each side was the size of two fists. The animal collapsed under the chloroform, but after artificial respiration for five minutes the patient gave a gasp, after another 10 minutes it gasped again and gradually recovered. It did well afterwards.

A two years old heifer was snorting and had a tumour on the side of the pharynx, and a little growth near the posterior nares. He found the growth to be in the form of two tumours the size of a hazelnut. He pulled it out with his fingers, leaving a pocket. He cut the side of the pocket with the embryotomy knife for drainage.

Professor Craig said that where so many glands were badly affected with tuberculosis there must be tuberculosis internally. When the pharyngeal glands alone were involved it might be worth while to operate.

Report of Council.—The Hon. Secretary read the report of Council, which did not call for comment.

Election of Members.—The following were elected members of the Association after being proposed and seconded: Messrs. Coulter (Roscrea), Lyons (Navan), Gardiner (Clones), R. O'Donnell (Thurles, Co. Tipp.), Crowly (Listowel), F. S. Ringwood (Enniscorthy), Carroll (Limerick), D. O'Reilly (Trim), and Lucey (Cork).

Votes of thanks to the Chairman and writers of the paper concluded the meeting.

J. J. O'Connor, *Hon. Secretary.*

* * * *

Meeting at Cork.

A General Meeting of the Veterinary Medical Association of Ireland was held in the Victoria Hotel, Patrick Street, Cork, on Friday, July 25th, 1930, at 12 noon.

The following Members and Visitors were present:—Professor Craig (President), Messrs. S. R. J. Cussen, J. J. O'Keefe, S. Hyde, J. J. Walsh, P. J. Walsh, C. O'Driscoll, M. F. O'Sullivan, P. J. Howard, J. F. Healy, P. M. Creagh, T. O'Leary, W. O'Callaghan, F. I. Alexander, J. Doyle, A. J. MacDonald, E. McSwiney, Lieut.-Colonel Ryan, J. J. Condon, D. and M. Barry, W. Nyhan, Professor Boyle (University College, Cork), and Professor O'Connor (Hon. Secretary).

The Chairman expressed his pleasure at presiding at the first meeting of their Association in the Southern Capital and extended a hearty welcome to the visitors to the meeting.

He said they were honoured by the presence of Professor Boyle, of the Institute of Dairy Science, University College, Cork, who had kindly offered to conduct them over the

* Reports received October 16th, 1930.

Institute and show them its many interesting features. He and the Members of the Association greatly appreciated this kindness of Professor Boyle. He hoped that in future a meeting of the Association would be regularly held in the South or West of Ireland and he invited those who were not members of the Association to join it at once and combine in promoting and defending the interests of the veterinary profession.

The Chairman announced that the minutes of the previous meeting were in the hands of the printers and would be circulated in due course.

Correspondence. (1) Communications expressing regret at inability to attend the meeting were received from Messrs. P. Dolan, Mulcahy, McD. Kelly, J. S. Macann and C. P. Hynes.

(2) Various communications relative to arrangements for the Cork meeting.

(3) From A. Donnelly (Drogheda), who desired to say, in writing, that he would not accept the reduced fees referred to in connection with the examination of horses for the Department.

(4) Communications concerning officiation at Mare Shows in Co. Kildare.

(5) From R. Marner (Cardonagh, Co. Donegal), enclosing a copy of his reply to the letter from the Department of Agriculture, offering reduced scale of fees and saying he will accept this scale if the Council of the V.M.A.I. cannot show him before the end of the month that the Veterinarians in the Irish Free State are refusing the offer.

(6) Reply mentioned in No. 5. Will give definite reply before the end of the month. Reminding them of: 1. Reduced rail fare from 1st to 2nd class; 2. Subsistence allowance reduced 20 per cent.

(7) From the Private Secretary to the Ministry of Agriculture, acknowledging receipt of the Hon. Secretary's letter *re* remuneration of Veterinary Surgeons at Mare Shows, and saying the Minister has noted its contents and is giving the matter attention.

(8) From the Secretary to the Department of Agriculture replying to the Hon. Secretary's letter of June 10th (1930) *re* redress of the grievances of the Veterinary Officers of the Department.

(9) From C. P. Hynes (Lismore) with enclosures from Waterford County Council *re* Annual Holiday for Veterinary Inspectors under the Local Authorities and the payment of substitute when on holiday or when absent through illness.

(10) From Dr. Fred Bullock, Secretary of the Royal College of Veterinary Surgeons, *re* single and third fares to the forthcoming International Veterinary Congress in London.

(11) From Dr. Thules—Adlingensivilerstor Lucerne (Luzern)—acknowledging receipt of "Ragwort Poisoning in Cattle" forwarded from South Africa, with thanks.

Consideration was given to the reply from the Department of Agriculture *re* the grievances of the Veterinary Officers of the Department. This reply was considered totally unsatisfactory and it was decided to postpone further action in the matter pending a discussion of the question with representatives of the officers concerned.

It was resolved that Mr. Hynes' letter be sent by the V.M.A.I. to the Department of Agriculture, asking that all local Veterinary Inspectors under the Diseases of Animals Acts be granted a fortnight's annual holiday, and that a substitute be paid for by the Local Authority during the inspector's absence, on holiday or through illness.

Accident to Mr. McDermot Kelly.—It was resolved that a letter of sympathy be sent to Mr. McDermot Kelly on the injuries which he suffered in a motor accident.

Reduced Fees for the Examination of Mares at Mare Show.—It was resolved that this question be left over for the present.

Paper.—Lieut.-Colonel Ryan, D.S.O., F.R.C.V.S., now read his paper entitled "Surgical Aids, etc." [Colonel Ryan's paper is reproduced earlier in this issue.—Ed.]

Colonel Ryan's paper was listened to with great interest and in the well-sustained discussion which followed he was congratulated on its merits. His practical hints were highly appreciated and in his reply to the several speakers he gave further very useful information of practical importance. Colonel Ryan exhibited the girth and instruments referred to in his paper, and they were examined with interest.

Those who attended the meeting expressed themselves as highly pleased with their experience and said they looked forward with pleasure to a similar reunion next year.

A hearty vote of thanks to Colonel Ryan for his paper was passed with acclamation.

Visit to the Institute of Dairy Science.

After luncheon, the party attending the meeting proceeded to the Institute of Dairy Science, University College, over which they were conducted by Professor Boyle, who took great pains to explain every detail of the working of the Institute, including sterilisation of milk, the separation of cream, butter and cheese making, and the methods of training creamery experts. All the members of the party were deeply interested in Professor Boyle's remarks and he discussed with them many points of interest which were raised.

Subsequently a visit was paid to the farm connected with the Institute, where great interest was evinced in the tubercle-free herd, the up-to-date fittings in the cowsheds, the milking machine at work, and the piggeries where pig rearing is extensively carried on.

Professor Boyle also went to much trouble here in explaining the plans of the buildings and the method of management of the farm.

At the conclusion of the visit, the President expressed to Professor Boyle, on his own behalf and that of the members of the Association, their sincere thanks for his kindness and the great pains which he had taken to make their visit as pleasant and as instructive as possible. They all appreciated very highly his invitation and were delighted with their experience.

Professor Boyle suitably replied and said that he was indebted to the Association for honouring him by their presence. He was deeply interested in the great work performed by veterinarians, not only in protecting the welfare of livestock but in promoting public health.

Practical Demonstration.—Mr. S. Hyde, M.R.C.V.S., gave a demonstration of the castration of two yearling colts in the standing position. He performed the operation with the Haussmann and Dunn emasculator. Much interest was taken in the procedure, which was quite successful.

A vote of thanks to Mr. Hyde was passed with acclamation.

J. J. O'Connor, *Hon. Secretary.*

Legal Liability for Damage by Animals.

A £2,000 Verdict Reversed.

In the Court of Appeal last week, an appeal was allowed which was made by the defendant, Mr. Seward Harcourt-Rivington, from the verdict and judgment in an action tried by Mr. Justice Talbot and a common jury.

The action was brought by Mr. Oliver George Fardon, an engineer's mechanical draughtsman, of 150 Vivian Avenue, Wembley, Middlesex, against Mr. Seward Harcourt-Rivington, of 42 Langham Street, W., for damages for personal injuries resulting in the loss of the plaintiff's eye.

On the evening of April 4th, 1929, the plaintiff had parked his motor-car in Somerset Street, Oxford Street, W., at the rear of Selfridge's stores, and was walking past a saloon motor-car, which was also parked with its back to the kerb, when, he alleged, a large Airedale dog, which had been barking and jumping about in the saloon car, smashed the glass panel in the rear of the car. A splinter of the broken glass entered the plaintiff's left eye, which had to be operated on and removed four days later.

The plaintiff alleged that the defendant was also negligent in parking the motor-car in Somerset Street, in placing the dog in the saloon, and in leaving the motor-car and dog unattended on the public highway. He alleged that the defendant was also negligent in failing to tie up or secure the dog in a safe and proper manner.

The defendant denied negligence.

The jury found for the plaintiff and awarded him £2,000 damages.

Mr. Harcourt-Rivington appealed.

Judgment.

Lord Justice Scrutton, in giving judgment, said that this was a curious and interesting case so far as the facts were concerned. He thought that Mr. Justice Talbot was right in saying that the dog had a blameless character up to the time of the accident.

Everybody must feel sympathy for the loss suffered by the plaintiff by the unexpected accident. It was, however, for the plaintiff to show that the owner of a dog doing damage in that way was liable in law for the consequences. He (the Lord Justice) took the law in reference to animals to be this. Animals, so far as liability attached, fell into different classes. There was first, the class of wild animals, *e.g.*, a tiger, or a gorilla, or a monkey. That class fell within the principles laid down in Rylands *v.* Fletcher (L.R. 1 Ex. 265), and a person taking out such an animal which was dangerous in itself was responsible for any damage which it did. Then there was the case of animals ordinarily kept in comparative freedom, *e.g.*, horses, cows, dogs, and cats. There was no obligation to keep cats or dogs under control. They might stray and exercise their ordinary propensities, but if they had, to the knowledge of the owner, a vicious propensity and exercised it, the owner was liable for any damage they might do.

In dealing with this case, he thought that it was a mistake that Mr. Justice Talbot had not directed the jury more in detail as to the law, showing the liberty which was allowed to the owners of dogs and cats. Approaching this case from the point of view that the jury had been properly directed, a dog was not a wild animal. If jumping about was this dog's ordinary propensity, the owner was under no obligation to restrain it, but it was otherwise if the dog had a special propensity which was dangerous. There was no such evidence here, nor that the owner knew anything of any dangerous propensity of the dog.

Leaving a dog in a motor-car was done in hundreds of cases, and nobody had ever heard of such an accident before. What the defendant had done was to leave his car in the highway with, apparently, a perfectly behaved dog inside, and something happened which had never been known to happen before.

In his judgment, there was no evidence on which the jury could find for the plaintiff. It was an accident for which the owner of the dog could not be held liable. The appeal, therefore, succeeded and judgment would be entered for the defendant.

Lord Justice Greer and Lord Justice Slesser delivered judgments to the same effect.

In Parliament.

In the course of his reply to points raised in debate on the address in reply to the King's Speech, in the House of Commons on October 30th, Dr. Addison, the Minister for Agriculture, said that he believed that the value of our live-stock was considerably over £100,000,000. Many of our grass lands would produce the best livestock in the world, but we had stood aside and looked on, talking about free trade and protection, while our brethren across the Irish Sea had been busy improving their live stock. They had improved it so much that the standard of the imported Irish stock was enormously higher than a few years ago. That was due to the fact that they had eliminated the scrub bull. He proposed to start on that; but in introducing that proposal he did not expect to get the blessings of the headquarters of the Farmers' Union, because he had never known them satisfied with anything. (Cheers and laughter.) They had even campaigned against Mr. Guinness, and if they could not be pleased by a Conservative of his excellent repute, how could they be expected to be satisfied with a Socialist Minister of Agriculture? He did not feel disposed to lament very much if they did not like his proposal relating to scrub bulls, but it was coming for all that. It was necessary because it was clearly the rational way of improving the standard of British livestock.

Bills Presented.

Amongst the Bills presented to the House of Commons on October 31st, were the following:—

Slaughter of Animals Bill.

"To provide for the humane and scientific slaughter of animals; and for purposes connected therewith," presented by Colonel Moore; supported by Countess of Iveagh, Mr. Wise, Major Sir Archibald Sinclair, Lieut.-Commander Kenworthy, Miss Lloyd George, Sir William Davison, Sir Robert Gower, and Mr. Dallas; to be read a Second time upon Friday, December 12th, and to be printed. [Bill 10.]

Live Stock Clubs Bill.

"To facilitate the provision of live stock clubs for the labouring classes in rural districts," presented by Mr. Beaumont; supported by Viscount Lymington, Mr. Butler, Lieut.-Colonel Heneage, Captain Dugdale, and Captain Balfour; to be read a Second time upon Friday, February 27th, and to be printed. [Bill 17.]

Rabbits Bill.

"To make provision for the prevention of damage by rabbits," presented by Mr. Hanbury; supported by Rear-Admiral Beamish, Major Davies, Mr. Lambert, Viscount Lymington, Sir Douglas Newton, Major Sir Archibald Sinclair, Mr. W. B. Taylor, Lieut.-Colonel Acland-Troyte, Sir William Wayland, and Lieut.-Colonel Windsor-Clive; read a Second time yesterday, and to be printed. [Bill 4.]

A Conference appointed by the League of Nations to inquire what steps should be taken to secure international limitation of the output of "dangerous drugs" to actual medicinal and scientific requirements held its first meeting in London on October 27th.

Horse Society Meetings.

National Horse Association.

At a meeting of the Council of the National Horse Association, held on October 22nd, the Council authorised the award, reported in the *Veterinary Record*, of the Association's Gold Medal and Merit Certificate to Police Constable William D. Sinclair, of the Metropolitan Police.

The Council heard with interest a letter from Lord Mildmay of Flete stating:—"May I mention what very great benefit has resulted to farmers in South Devon and to all who ride from the very successful efforts of Mr. C. G. Argles and the Slippery Roads Committee, to induce our local authorities to treat our roads with larger grit. We no longer ride with our hearts in our mouths, and farm stock too has benefitted generally from the improvement which has taken place."

The question of the Road Traffic Bill and Highway Code as affecting horse users was discussed by the Council, and it was reported that early in the year a meeting of representatives from the Horse Breeding Societies had been called, when suggestions for inclusion in the Highway Code as to the conduct and control of horse traffic to be observed by motor and horse users had been drawn up and submitted to the Minister of Transport, who intimated that "He would give careful consideration to the suggestions of the Association, when the Highway Code is in course of preparation, and will bear in mind the offer to arrange for representatives to discuss the subject with him."

It was reported to the Council that, as a result of the Association's representations, the Railway Companies will be prepared to allow a stallion charged at reduced rates, *viz.*, single rate for an ordinary horse, plus 10 per cent. for the double journey, to entrain on the return journey at an intermediate station on the direct line of route, travelled on the outward journey, without extra charge. This decision was directed to be conveyed to the many stallion owners who had appealed for this concession.

It was reported that 10 medals had been awarded in 1930 for the best fitted shoe at country show competitions, and the award of additional medals in 1931 was confirmed.

The Secretary reported that after payment of all accounts to date the Association would have £120 on current account; £365 had been received to date in subscriptions, and it was satisfactory to note that the membership was steadily increasing.

Sir John Moore reported that a number of letters and articles on the subject of horse transport had been reproduced in the press, and that some thousands of the booklets on transport costs had been issued to business firms. Instructions had been given for the monthly issue of an illustrated calendar, showing the advantages of using horses, while it would also contain a list of the principal events of interest to horse lovers and users.

National Pony Society.

At a meeting of the Council of the National Pony Society held on Friday, October 10th, it was reported that the next Pony Show would be held at the Royal Agricultural Hall, London, on Friday and Saturday, March 6th and 7th, 1931. Fifteen Classes would be offered, covering facilities for the exhibition of Breeding and Riding Polo Ponies, Arab Horses, Welsh, Shetland and all the breeds of Mountain and Moorland Ponies, together with competitions and three Children's Riding Classes. The offer of Cups for the best Girl and best Boy Riders was withdrawn, and an innovation this year would be the inclusion of two Handy Pony Competitions for children over a special course. The classification of the breeding and riding classes would remain the same, but an additional fourth prize of £2 would be offered in all the Polo Classes if ten entries competed. Sundry alterations would, however, be made in the competition classes; it was decided to dispense with the Water Jump, to provide another obstacle in its place, and to have the usual Open Jumping Classes on each day, with the Novice Jumping Competition on the Friday. The conditions of the other competitions were slightly altered.

A long discussion took place as regards the measurement of made Ponies in the Riding Classes, and in view of modern requirements and so as to avoid the possible exclusion of prospective International Polo Ponies, the Council resolved that there should be no measurement or Height Limit in the Riding Classes at the 1931 London Show. The Council considered, however, that it was essential that the Height Limit of 15·0 hands should be retained in the Breeding and Young Stock Classes.

Mr. F. H. Unwin reported that during the past show season the Society had offered six Gold, 20 Silver and two Bronze medals, and the sum of £40 at London and country shows for Polo Ponies, while the sum of £61 and 17 Silver Medals had been awarded to the various Mountain and Moorland breeds of ponies. The offer of medals and premiums in 1931 was renewed, while the Society would again offer a special prize of £20 for the best Polo-bred pony exhibited at the Hurlingham and Ranelagh Shows, subject to there being an entry of 10 eligible ponies in the special class for these prizes.

Entries for Volume 20 of the National Pony Stud Book have now closed, so that the book will be available at the end of the year. This volume will contain some 750 entries covering Polo and the various Mountain and Moorland Ponies, together with records of prize winners at the London and country shows. From the many photographs submitted the Editing Committee have selected 17 to illustrate the book. The supplement of Young Polo Ponies will also be issued at the same time.

Owing to the poor attendance at the Annual General Meetings, usually held during the judging at the London Show, it was resolved to hold the Annual General Meeting in 1931 some time in April at the Society's offices, and due notice of time and date will be issued later.

Veterinary Inspection at Stoke-on-Trent.

"The Stoke-on-Trent City Council yesterday afternoon discussed the advisability of appointing a full-time veterinary surgeon," says the *Staffordshire Evening Sentinel* of October 24th.

"A special sub-committee advocated that the Medical Officer of Health should frame a scheme for employing the present part-time veterinary surgeons to better advantage, and that such scheme be submitted to a further meeting of the committee with a view to its being given a trial for 12 months.

"Mr. H. J. Colclough (Chairman of the Health Committee) moved an amendment that the Medical Officer of Health be requested to frame a scheme for employing the present part-time veterinary surgeons to better advantage, and that a whole-time veterinary surgeon, possessing the diploma M.R.C.V.S., be appointed to carry out the duties required by the Health and Watch Committees respectively under the Tuberculosis Order and the Milk and Dairies Acts, and such other duties as the Health Committee may require, at a commencing salary of £550 per annum, rising by annual increments of £25 to £700 per annum, together with an allowance of £100 per annum.

"We believe, whatever may be said to the contrary," declared Mr. Colclough, "we could stamp out the whole of the tuberculosis conditions in this city. It is better to spend money on a full-time veterinary surgeon with a view to this than to spend it on children in sanatoria. The opponents of the scheme need not be apprehensive that a new expensive Corporation Department would be set up. I promise a substantial decline in the infantile mortality rate in this city if you make this appointment."

"Alderman A. Hollins, M.P., urged the appointment of a full-time veterinary surgeon, but Alderman F. Hayward said he was against the proposal at any rate for 12 months, urging that there should be more collaboration as regards the work of the part-time surgeons, and a new scheme framed for their employment.

"The amendment was lost by a large majority, the recommendation being carried."

Notes and News.

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events.

Nov. 8th.—Meeting of the Scottish Branch, N.V.M.A., at Stirling.

Nov. 10th.—Meeting of the Editorial Committee, N.V.M.A., at 2 Verulam Buildings, Gray's Inn, W.C.1, 4.30 p.m.

Nov. 12th.—Meeting of the Western Counties Division, N.V.M.A., at St. Austell.

Edinburgh Degree of B.Sc. (Vet. Sci.).

The following students at the Royal (Dick) Veterinary College, Edinburgh, have been successful in the undernoted Examinations for the Degree of B.Sc. (Vet. Sci.), granted by the University of Edinburgh :—

Anatomy.—F. H. Addison, W. B. Forrest, I. A. Graham, R. McNeil.

Physiology.—F. H. Addison, W. B. Forrest.

Embryology.—P. Durran, A. Gibson.

The Degree of B.Sc. (Vet. Sci.), was conferred upon Mr. Duncan A. Macpherson, M.R.C.V.S., by the new Chancellor, Sir James M. Barrie, on Saturday, October 25th, 1930.

Medical Research in Scotland.

Advisory Committee Appointed.

A Scientific Advisory Committee on Medical Administration and Investigation has been appointed by the Secretary of State for Scotland.

The reference to the Committee is "to assist the Department of Health for Scotland in applying the results of scientific research to the details of public health administration and in prompting such medical investigations as come within the sphere of the Department or of the local authorities in Scotland." The members of the Committee are :—

Mr. Alexander Bowman, D.Sc., F.R.S.E., Scientific Superintendent, Marine Laboratory of the Fishery Board for Scotland; Professor C. H. Browning, M.D., D.P.H., F.R.S., Professor of Bacteriology, Glasgow University; Professor E. P. Cathcart, C.B.E., M.D., D.Sc., LL.D., F.R.S., Professor of Physiology, Glasgow University; Professor F. A. E. Crew, M.D., D.Sc., Ph.D., Professor of Animal Genetics, Edinburgh University, and Director of Animal Breeding Research Department; Sir Walter M. Fletcher, K.C.B., M.D., &c., Secretary to the Medical Research Council; Sir Robert Greig, M.A., LL.D., M.Sc., F.R.S.E., Secretary, Department of Agriculture for Scotland; Mr. John Jeffrey, C.B., C.B.E., Secretary, Department of Health for Scotland; Mr. J. Parlane Kinloch, M.D., M.R.C.P.E., D.P.H., Chief Medical Officer, Department of Health for Scotland; Mr. A. S. M. Macgregor, O.B.E., M.D., D.P.H., Medical Officer of Health, Glasgow; Professor T. J. Mackie, M.D., D.P.H., Professor of Bacteriology, Edinburgh University; Professor J. J. R. Macleod, D.Sc., LL.D., M.B., Ch.B., D.P.H., Professor of Physiology, Aberdeen University; Professor Robert Muir, D.Sc., LL.D., M.D., Professor of Pathology, Glasgow University; Mr. J. B. Orr, D.S.O., M.C., M.A., M.D., D.Sc., Director of the Rowett Institute for Research in Animal Nutrition, Aberdeen; and Professor W. J. Tulloch, O.B.E., M.D., Professor of Bacteriology, St. Andrews University.

Dr. Parlane Kinloch is Chairman, and Mr. George Wallace, of the Department of Health for Scotland, is Secretary of the Committee.

The appointment of the Committee follows on the Conference of Research Organisations which was held in Edinburgh in November of last year, and at which Mr. T. Johnston, M.P., Under-Secretary for Scotland, presided. A more intensive use of Scottish research material and the correlation of work in the biological sciences, having a bearing on medical as well as on agricultural, fishery, or other fields, were urged at the Conference. It was also urged at the Conference that a scientific advisory committee would secure the application of the most recent results of medical research.

Army Veterinary Service.

Movements of Officers.

Major T. Hodgins, who proceeded to the Northern Command on October 24th, is now doing duty at Catterick.

Major F. Hogg proceeded from Woolwich to Colchester for duty on October 28th.

The following officers whose commissions were confirmed recently have been posted for duty as under :—

Lieutenant L. W. Coulden, Lieutenant J. V. Tevlin, Aldershot; Lieutenant R. K. Kent, Woolwich; Lieutenant A. A. Kidd, Tidworth.

Major J. Judge, who reverts to the British establishment with effect from November 20th, is being posted to Aldershot.

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London Gazette—War Office—Territorial Reserve of Officers.

Major William S. Stevens was transferred to the Territorial Army Reserve of Officers on May 31st, 1930.

League and Veterinary Services.

The League sub-committee of experts on veterinary matters has finished the work of its fourth session.

The committee which inquired into the practicability of international collaboration among veterinary services recommended the setting up of an information service which would include the publication of urgent news and telegraphic communications; the admission of students and professors from one country into the institutions and laboratories of another; commissions of inquiry; exchanges of sanitary officers; and the permanent establishment of officials of one country in the territory of another.

The experts also stated in what measure and by what methods various countries might come to an agreement with a view to removing the hindrances to trade, which, from the point of view of the legal protection of animals and of public health, are neither justified nor necessary. To this end it drew up recommendations on the issuing of import certificates, the conclusion of bilateral veterinary conventions, the method of preparation and delivery at the time of exportation and the sea-transport of live stock.—*The Times*.

Value of the Proved Sire.

Though acknowledging that the Government premium scheme for young bulls has been of great value to cattle-breeding, Dr. Alexander Calder (of the Animal Breeding Research Department of Edinburgh University) believes that the granting of premiums to encourage the exchange of proved sires would be of even greater value in the improvement of both beef and dairy herds. He outlined a scheme for exchange of proved sires in a lecture given to the New Monkland Farmers' Discussion Society. The mating of parents with productive dairy records, he pointed out, is no sure safeguard against obtaining even a high production of unproductive daughters. The bull seemed to be the uncertain parent in the transmission of milking qualities.

Dr. Calder criticised the policy of replacing 50 per cent. of our bull stock annually with yearling bulls. At the end

of the second breeding season a beef bull would have shown his value as a sire. But it takes longer to prove a dairy sire—he would be 4½ years old before the worth of his first crop of daughters could be estimated. The majority of dairy farmers were opposed to breeding from a bull of more than three years of age. The risks of handling an old bull were often considerable unless he was housed in a properly constructed bull box with outside yard for service purposes. The average size of commercial herds limited the scope for keeping bulls for more than two or three seasons in the same herd.

Hence he advocated a scheme for the exchange of proved sires. If breeders made full use of existing tests for contagious abortion and tuberculosis, they need have no qualms about introducing a used bull into their herds. He suggested that at the end of the second season a good breeding premium bull would be officially recommended for renewal of premium if purchased for use in another district. An official register of proved sires offered for sale should be kept.

H.M. Stationery Office Publications.

The undermentioned have been published recently. Copies can be purchased through any bookseller, or directly from H.M. Stationery Office, at the following addresses:—London: Adastral House, Kingsway, W.C.2, and 28, Abingdon Street, S.W.1; Cardiff: 1, St. Andrew's Crescent; Manchester: York Street; Edinburgh: 120, George Street.

	Price Net.	Post Free.
	s. d.	s. d.
Scottish Education Department:—		
Education (Scotland) Act, 1930:—		
Supply of Milk to School Children. Joint Memorandum by the Scottish Education Department and the Department of Health for Scotland, October 30th, 1930	0 1	0 1½

Errata.—We regret that the authorship of the clinical contributions entitled "Subcutaneous Emphysema of Pulmonary Origin in a Cow," and "Milk Fever and Intravenous Air," appearing in our last issue, was erroneously attributed to Mr. J. R. Baxter, of Lechlade, it being to his son, Mr. A. J. Baxter, of Lechlade, that we are indebted for them.

Register of Laying Records.

The National Poultry Council has published Volume IV of the Register of Records in Laying Trials recognised by the Council, which covers the trials for 1929-30, which ended recently. A good idea of the extent of the laying test movement is afforded by this register, which contains details of nearly 2,000 individual scores. The register is intended for international circulation, to draw attention to the merits of British laying stock, and copies can be obtained for 6d. each, post free, from Mr. A. H. Brownson, Lutterworth Road, Nuneaton, or from the Secretary of the National Poultry Council, 20-21 Essex Street, London, W.C.2.

Correspondence.

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.
All correspondence must bear the name and address of the contributor for publication.
The Editor does not hold himself responsible for the opinions of his correspondents.

Treatment of Canine Distemper.

To the Editor of the Veterinary Record.

Sir,—I thank Major Chambers for pointing out that there is a reliable curative serum available for canine distemper. I was under the impression, however, that Laidlaw and Dunkin had been unable to produce a serum of this nature, and this, I believe, is the case. Since writing the article in question I have had my notice drawn to a preparation known as "Davenil," and if the claims made for it can be substantiated, I should imagine that most of our troubles in connection with distemper are at an end. In any case, I intend to try the effects of "Davenil," thyroid and Major Chambers' "Homologous Canine Ante-Distemper Serum" on the next three cases of distemper I get and note the result.

Yours faithfully,
H. E. Smithers, M.R.C.V.S.

"Conniston," Whitchurch Lane,
Edgware, Middlesex.
November 2nd, 1930.

Inspection of Pit Ponies.

We reproduce herewith a letter on this subject published by the *Daily Mail*, of October 18th, and an additional communication relative thereto which was addressed to that journal by the N.V.M.A. on October 20th, and of which the final paragraph was deleted in publication.

To the Editor of the *Daily Mail*.

Sir,—I notice a letter from Mr. R. F. Hanks on cruelty to pit ponies. I have been associated with pit ponies and pony drivers for more than 40 years, commencing when there were far more ponies and big horses in the pit than there are now, and I have never seen ponies treated worse than human beings.

There are certainly times when men have to work a double shift, and under similar circumstances there is no reason why a horse should not work a double shift, but Mr. Hanks talks about ponies generally being made to work 16 hours a day when there are scores of pits to-day that are not working more than 24 hours a week.

I wonder if Mr. Hanks has read the Coal Mines Regulation Act, 1911? If so, he would find the law setting out the number of horses under each horsekeeper and the duties of the horsekeepers, and how it is incumbent upon the owners, agents, and managers of mines to see that their officials carry out these regulations.

The pony driver cannot be employed under an age when he is expected to be at least a soul above a heathen. Also there are the miners' officials themselves, who are as human as any men, and they do not forget to let you know it, either; and, last but not least, there are H.M. inspectors of mines, some of whom are certificated veterinary surgeons.

L. C. P.

Barnsley.

. . . . .

The Editor, *Daily Mail*, London; *Daily Mail* (Northern Edition), Manchester.

Sir,—This Association is substantially in agreement with the remarks of your correspondent "L.C.P.," writing on cruelty to pit ponies. It is, however, necessary to point out that none of H.M. Inspectors of Mines are "certified veterinary surgeons," as stated by your correspondent.

Many of the large colliery companies do employ veterinary surgeons to inspect, supervise, and generally to advise them on the efficient maintenance of their studs, with distinct advantage to the animals, and to the economic aspect of the problem.

It has long been the view of this Association that the Government inspection of animals used in mines should be subject to veterinary supervision and control, and in the light of the experience of colliery companies in this matter, it is remarkable that such a course has not been officially adopted.

Yours faithfully,
F. Knight, *General Secretary*.